VOLUME III NUMBER 5

THE ELEMENTARY SCHOOL TEACHER

JANUARY, 1903

THE PLACE OF THE KINDERGARTEN.[1]

THE question of the relation of the kindergarten work to the rest of the child's school life is a question shortly answered if we put it directly. We have only to quote from Froebel's own words whenever he speaks of the inner need of continuity. Indeed, the study of Froebel's life and work seems clearly to show that his interest in the young child was developed gradually by working backward through the successive stages of advancement. This is an experience not peculiar to Froebel, but common alike to educators and to the average grown person. When Froebel had achieved this interest in the period of early childhood, or, as he puts it, in the early life of man, he worked out the forms in detail for the presentation of ideas for this period. His life was too short for him to carry the process throughout the period of adolescence and human growth. It is my purpose, therefore, to assume in this discussion that Froebel's interest in education was such that he would have evolved ultimately as fully formulated a scheme for the whole process of development as he has left for the use of the young child; that throughout this he would have insisted upon his great principle of inner development and continuity, and that consequently in any use of his kindergarten system one must always remember that she is employing a portion only of the plan of a master. She must therefore ask herself, in the application of each part, what relation that part bears to everything which is to follow in the life of the particular child before her.

[1] This paper was prepared for a general introduction to the subject, "What is the Relation of the Kindergarten Work to the Whole Education of the Child?" and read before the Kindergarten Club of Chicago, October, 1902.

So much for the statement of our question, which thus stated answers itself, and brings us thereby to a consideration of any and every element in the constitution of the scheme of education. It is little wonder that we hesitate to open gates which let loose a flood of questions such as might sweep away the answers in which we rest and work. It seems better almost to forget the future, that great source of ideas and answers, whatever mysteries of heaven may be reflected from its surface. To save us from this possible conclusion of humdrum hopelessness, we have in our midst, and growing all the time from the work which holds and drives us, that element of eternity for which we work—the child himself. Through him we learn that if we flee from the impracticable future, 'tis he himself will bring us to it. If we weary with questioning, 'tis he who will heap up interrogations until we must clear them away. We are led on out of our tired and time-worn notions to learn not the lesson of the thing we see, but the lesson of the thing that is, of that which is to be, and to live by means of the tiny voice as the flower lives by the dust of the breeze.

I shall assume, then, the validity of the child himself as the embodiment and defense of this continuity of development, as the treasure-house of human welfare in which we should place only that of which we cannot tire; that for which, if need be, every other possession be given up. With this assumption in mind, we face the practical question in the minds of us all, the question before which I pause: What are we doing to help or to hinder the development of this child? What ideas are we able to interpret for him? What material to mold are we giving him? What end do we help him to attain? Once more, it is only the memory of his questions which can induce us to face any of the possibilities we thus open up to ourselves. I shall ask you to consider two phases of this general question which have of late most impressed themselves upon kindergarten workers. The first is: How far do the present kindergarten method and teacher relate themselves to what has preceded the kindergarten in the life of the child? The second is very like the first: How far can the prescribed gifts and occupations relate to what is to follow in the life of the child?

While Froebel, as do all of us, reached the mind of the child by a progressive working back from the man, it is exceedingly interesting to contrast this process with the development of maternity. Since it is in some contrast of experiences that the first and radical break in the educational process seems to originate and persist, for this reason the frequent and even continual retracing of the psychologic steps in individual history is never wearisome. The average mother being young and inexperienced is little aware of the power and opportunities presented to her. She is largely occupied of necessity in keeping the child clean and warm and fed; her physical strength is not normal, and a certain morbid and one-sided emotional state has probably been induced by her unusual exclusion from social stimuli. Taking the mentor of his being thus at a disadvantage, the child begins his phenomenal career, getting ahead in the world at a rate too rapid for the mother to realize, still less to compete with. As Froebel shows again and again, we cannot give nor prevent experience by telling, and one can scarcely believe that even with the most careful preparation the young mother could be made sufficiently aware of the progress which she alone is to witness intimately, to keep her in conscious control of all the manifestations of the growing soul and body. Whether or not she could, she does not as yet acquire such consciousness in any degree of clearness. She is, if a good mother, necessarily content with that larger knowledge and feeling that completely satisfy her in the healthy child, the feeling of general well-being and continuing interest in watching the evolution of the highest ideals of human love and intelligence. Gradually and almost unconsciously the principles which she laid down in advance for her guidance fall into disuse. They do not fit the case. The young individual before her ignores or even resents the presence of her ideals, and to her surprise she sees them becoming mere ghosts from a past which she herself is relinquishing. The pleasant memories of psychologic or kindergarten theories, even ethical standards, continually merge into daily activities. When she has time to stop and think, she wonders, and often with no answer to her questions.

The curiosity of the young one is meantime penetrating to unexpected regions, and all at once he has his own environment, his personality. I feel that no disrespect is shown to motherhood in saying that the first break in education occurs at this point, if we can name a point at which growth reveals itself. His conscious "environment" seems to exist all at once, to the onlooker, but not so to the baby. He has by a power long since forgotten by the grown-up, constructed for himself a consciousness no less complete and entire than that of the larger person, although it is less comprehensive in its scope. Now, the most that can be done by the mother is to regulate within her own boundary the tools for this great creation. Her field is measured by the length of her arm, at the outside by the length of her vision. It is the period when the child needs to be let grow. As for the spiritual element in her mind, the young one has done what he likes with such plastic stuff. The best she can do is to look ahead and try to see whither he will carry his new possessions, and whether she can follow. The time has not come for the younger mind to look back for her. There comes a call like that of old, "Let my people go;" and she obeys.

Am I mistaken in thinking that it was the preparation for this departure into a new world that Froebel desired? No one will, I believe, deny that the meaning of the "Mother Plays" is simply this, that they are an attempt to simplify and to clarify this passing out from the small center of the narrow and intense life of the family where the instinct and the emotions are the guides to action, into the larger and more diffused activities which demand intellectual control. The time when instinct and simple emotion have control in human life is short, but curiously enough it is during this time that intelligence has its most rapid growth; in a sense, its most important growth. Intellectual ends are set up independently during this formative period. The child chooses what he likes and dislikes on lines of his own selection. No amount of either indulgence or correction can do away with this situation. Rarely, if ever, is the mother able to see fully and to account for its beginnings. She

is puzzled by an opposition whose origin she knows not, an independence along lines which she did not lay down, whose direction she cannot see. Because her intellectual confusion over the new situation is so great, and also because the present importance of the opposition is so slight, she probably relegates the whole matter to the background of her consciousness, and relies upon the affectional and inherent ground of relation to her child. It is conceivable that education may reach a point in the future when the unity of intellectual life of the child and the mother will be as unbroken as is the affection developed from day to day. It is hardly possible to say, however, that that ideal of education is often seen at the end of the first four years of life. Teachers will be as ready to grant that point as will mothers to see the next gap which we have to bridge.

To what then shall we trust if we are to accept average conditions, and make the best of them? Simply to a certain selective power in the young one himself, remembering that we have not as yet defined that power, and, further, to our own faith in the instinctive control, which does as we have seen transcend any external barriers which may be put in its way.

The first act of choice, the break which it causes, have given an experience consequent upon independent activity to the young human being when first he comes to school. He has the habit already formed of judging for himself. He has a method of thinking, as inevitably his own as was that of the mother, or that of other care-taker who made him see his own way by compelling him to react against her way. Supposing now the teacher into whose hands he passes to be of the best sort, but that only imperfect, what sympathy and what conflict are we likely to find? First of all, of course, a love for the child and a belief in his aims. Also a preparation for understanding the child reached by a process inverse to that of the mother's. Other things being equal, a less enriched personality from the standpoint of human contact and evolution. We find, on the other hand, a finer observation of the idiosyncrasies and a truer sense of the social value of the child, and of the eliminations and enrichments consequent upon his placing in a new society.

As a matter of course, a teacher must begin by choosing between the many points she may find in her own and the general experience which will appeal to and be understood by her new class of children, for we now have children instead of the child to consider. It is not, therefore, the teacher alone who is to instruct. She has also to face the problem of what the children in the class are to learn from each other. Naturally it is difficult to make a choice among the many points of contact possible between the teacher and the child, between her consciousness of what is to come and the whole power the child has already gained in self-expression. That which the mother has learned from day to day, and night to night, in every motion and feeling of a being most sympathetic to her own, the teacher must now presuppose and use, however different may have been her own habits to those of the mother.

At such a point we might again give up discouraged, if it were not that necessity requires us to follow the child. To teach a child if he were really unknown would be a sacrilege, impossible to anyone in her right mind. If the teacher can follow, there is a break no more impossible than the one between the child and the mother. If the teacher assumes a knowledge of the child, the case is lost—there begins at once that thwarting of the everlasting right which we call arrested development. The helplessness of the young one is as great as the power of the teacher. There is no situation in life more important or more delicate than that period during which the child is discovering for himself his new relationship, as he surely will if he does not become hopelessly confused. This discovery must involve every intellectual process in its establishment, and the teacher, more than anyone else, originates these processes, whether she knows it or not. In the last analysis it is impossible for the teacher to imitate merely, simply to pass on a lesson or method devised by another; just as impossible as for her to assume that any one child is exactly like any other. The child is always ready to help, to idealize anything she may do or give, to create, but she may be sure that in some way or other he will discover her own method; if not directly

and because she gives it to him, then in spite of her. Because she is one, and the children are many, because of the greater flexibility and naïveté of the child-mind, the child is likely to have an even better practical appreciation of the teacher's ways than she has of his. He will quickly see whether she herself has an inner knowledge of all that she gives to him, and whether his own knowledge relates to her method of presentation. He will assert himself against the dogmatism of mere assertion. If he is strong enough to react in spite of her failure to intelligize a lesson, he will in time create a new method of his own; and the split between teacher and child will be concealed under social forms, while he goes his way as surely as she goes hers, and nobody any the wiser. If, on the other hand, he does not possess a vigorous intellectuality, a repression deeper than manners will ensue, a resentment, a beginning of bitterness and pessimism, which is the inevitable consequence of a loss of faith in ideas. Both types of children are conscious, to a degree, of the fact that the teacher had not faith enough herself in the ideas she is trying to transmit to make them a common meeting-ground in which she and they become one.

Starting with obvious differences resulting from apparent conditions of life we may run over a scale of intervals scarcely distinguishable, but each one distinct in itself and forever sounding itself in its search for harmony. Each note the teacher must hear and attune. She cannot know nor foresee these differences, but she must always be open to finding them out. If she asks how she can find them out, the value of the reply is so meager as not to be worth including in the situation. The child will show her, her sympathy will show her, she will know how; and if she does not, she should seek some other vocation in life.

Doubtless we could, any of us, fill a book with the things of all sorts which children experience not included in the cataloguing of the so-called periods of development. The members of a family that live in one room all take for granted a knowledge of each other which, if gained by the family which inhabits a mansion, is concealed as a forbidden thing. Similar is the contrast between the city and country child regarding the phases and circumstances of external nature.

Perhaps we may state the danger in this way: We must not underestimate the intelligence of the child — by intelligence meaning his training and whatever power he has acquired in judging and discriminating — in short, his experience: for he has an experience all his own, and he will not tell you what it is, and no one knows its full nature. This does not mean that he has a new kind of mental activity, like a third leg to help him walk, but simply that he has already acquired that individualizing of consciousness which is as distinct as is your own. He knows what he knows.

If he has counted and measured with his pace the spots on every carpet in his father's house, we must be careful how we put him before a table and instruct him in the relation of one and one, one square and one square, two squares and two squares; he may be bored and feel slighted. It cannot be repeated too often that children have their own method, their own mental ways at four years of age. It is the business of the teacher to find out these ways, and through them to lead the child to other ways. It may be possible to wrong a child by trying to give him by means of a gift, a knowledge of the three dimensions of space of which he gained complete control at the age of nine or twelve months by going up and down stairs, or by climbing in and out of a high chair. Only a teacher who has watched closely has seen the two-year-old baby feeling of the door casings, the chairs, whatever he can reach, telling stories to himself about what he finds out, getting a knowledge of materials, organizing that knowledge, all in a way we do not know and never can know except as we learn it from the child. The teacher who ignores the possibility of that knowledge, who forgets any experience gained from the days of the nursery world, is assuredly doing harm through the gifts and their use, as the teachers of our grandmothers did harm with the book. She is turning the energy which the child should use, and would use if left to himself, in gaining new ideas, into the monotony of mere repetition. Whether by means of the fight on the corner, by the figures on the wall paper, by the bouncing of his ball, by the happy combinations made in play with his brothers

and sisters, the four-year-old has begun his education. He has viewed and judged situations; and taken altogether these situations for the average teacher are of endless variety. She must then make use of the selective power which we trust she has not lost, and at once set up a common working principle with the child. She classifies, not because her intelligence is different in its nature from the intelligence of the pupil, for we are all learners, but because it is wider in its scope, and because for her own convenience, and the convenience of all the children, she must choose and eliminate.

To illustrate this point the question so frequently discussed in the kindergarten plans for the last few years will serve. I refer to the question regarding the kinds of material and the resultant methods of using them. Shall they be free, so-called, or organized? Such a question appears to be simple and natural, rather forcing itself on every teacher who goes in thought beyond the lesson form. It is impossible, in considering the world over against the child, not to consider the child as over against the world, his coming world. Immediately, then, we face the question as to the qualities of this world, and, willing or unwilling, we make at once the large and easy division between nature and art, between free and organized material. What shall we say regarding the two great possibilities opening here? Shall the teacher walk into the open air, and say to her pupil: "Behold nature, her plastic and variable surfaces are yours to mold, to break, to define." Or shall she lead the child quietly to a sheltered spot and say: "Here are the constructions which history records; the forms which you are to improve, the manifestations of mind; these you can further analyze and increase and enrich." Since she must choose, which of these two shall it be? The child is nature, he is soft and pliable, and therefore he accords with nature and inclines to begin at once there without the telling. But a short trial shows her that he has a long journey to retrace before he sees the source of his things. He was busy setting up a line of operations all his own during those first months when he strengthened his legs against the clothes, and taught his eyes and his feet to follow the lines

of the casings and carpets, and his hand to build castles and towers with wood, and to feel the flying ball.

Is she to conclude from this habit which amounts often to a preference for mathematically constructed objects, that these objects alone will satisfy? Or is she even to conclude that such objects are to be the means through which she is to lead her charge back to nature? No wonder a teacher is tempted to conclude that by beginning at the standpoint of the present achievement, that is of the finished result, she may go back and thread the labyrinth, learn the path through which man has walked. Scarcely, however, has she reached this conclusion when she finds the limit of the youthful interest in the line, the block, the form. It becomes evident that the elusive being before her cares nothing for what has been, and therefore is; he suddenly demands the whole formless mass of matter to reconstruct for himself. So strong is the evidence in this latter direction that we have plans for kindergarten instruction based almost exclusively on the idea that simple nature accords fully with the child's attitude. In this connection we have the authority of the late Colonel Parker: "It seems logical that real or natural forms should be studied first, that they are more adapted to the crude concepts of the child."

Thus appears to me to have arisen quite naturally and from living conditions, that difference of opinion, apparently so wide, as to the two points of approach to the young mind. But why regard the distance between these two as so great or so fixed? In the life of any person of school age, both these sorts of experiences already exist and persist. Form has been already defined and applied. Nature has been sought and known and loved and made over. What more can we need or say than that the method must and certainly does, whether we wish it or not, lie in the proper adjustment of these two lines of approach? And further, that the propriety of the adjustment must be found by the teacher herself from the experience of the child. For this thing is sure to happen. The pupil will seek and in some way find that which his world and mind demand. If he is restricted as to material, or so-called subject-matter, in his class, he will instinctively and

energetically find what he there misses. Missing further the assistance he needs, that which he finds for himself will often remain to him in large measure unused and confused. There is no doubt we may justly make use of certain habits as far as they can be defined, and assume a common experience to which and from which to work. If the mind is so civilized as naturally to lend itself to the contemplation of mathematically constructed materials, no one can question the right to use that inherent power of adaptation provided it is used consecutively and evenly. If also the religious and philosophic habits are so settled that symbolic interpretation of natural forces and forms is spontaneous, the same right exists for making use of these habits. If the child, however, is repeating a phase of human development which demands for its essential satisfaction the crude and plastic matter of which he is a part, in so far are we not justified in asking him to use or interpret for our own purposes the forms and ideas which have resulted from the slow sophistication of adult life? Any result from a lesson conceived on such a false basis must necessarily be unrelated and harmful to the balance in the mental equipment of the child. The effects of such unrelated activity and struggle become more and more evident as the years go on, but the kindergarten teacher can ill afford to believe that this danger does not exist at the very beginning of school life.

To quote again from Froebel: "We teach our children without having aroused an inner want for the instruction, and after having repressed everything that was previously in the child." The young child enters the school with this inner want either encouraged by fostering, or by reaction to some deficiency in the family life. Rarely has it been crushed in a child before the kindergarten age. It is obviously, then, the first duty of the kindergarten teacher in looking ahead to see whither she and her charge are tending; to look also without ceasing upon every impress of the past as an index of the nature of the child, to be used and modified consistently with the motive of their origin and of their aims.

The second question which pertains to the continuance of the

school life cannot yet have a definite answer. The idea involved in Froebel's plea for German ideas, and for German education would seem to have great value in the country where individuality has acquired more rather than less force than it had in Germany. To continue and to expand the home training one must understand it in its endless variations. In order to continue and expand the kindergarten training, it must by its nature have related to the continuous life and wholeness of the child. Perhaps it is not within the scope of this introduction to the subject of the year to do more than state this question. To analyze the method of the kindergarten from the standpoint of higher criticism is doubtless your aim in proposing such a subject. This requires a thoughtful study, not a sudden throwing aside of forms which one may conclude do not express fully or justly an ideal of life or freedom in which she herself may have entire faith. If one has faith in the principle of growth, one does not continuously pull up by the roots, but rather trusts to the safe and slow manifestations of change as a basis for further change. Such changes can be assured only by introducing proper conditions of growth, and for these conditions eternal vigilance and effort are required. Before us at each step are two temptations: reaction, immediate self-assertion or mere conformity. It is easy to see and find fault with the effects of the former in our so-called new education at the present time. It is easy to see also that, if all life and education were free and spontaneous, conformity would not mean repression.

"Our speech," says Froebel, "is like the book out of which we have learned it; we cannot give outward form to what we say." The history of the kindergarten for the last thirty years in this country appears to verify certain criticisms which Froebel made on German education in his time. The adoption of forms and methods foreign to the German people was continually deplored by Froebel. "Shall we never cease stamping our children like coins and adorning them with foreign inscriptions?" he says. It is not presumable in making these criticisms he wished to assert that all development must come

from self-made principles and from local conditions. In all life, as well as in all learning, the juices of the past are feeding new growth. Whatever has filtered through the generations, and been assimilated, and lives in the present, is ours, no matter whence it comes. It is the essence, the idea, the underlying method, which thus becomes universal, and is transmissible from century to century. At present I venture to say we have more insight both by inheritance and by nature than art, more philosophy than power to shape; more material than we have learned to control. Doubtless the enigma of art will gradually be read and a formulation of educational principles, more simple and more universal than anything experienced up to this time, will follow. We cannot, however, be safe in assuming that the imperfect formulation peculiar to any time and any people is, or will ever become, universal in its application. The changes made in the scheme of kindergarten work up to the present time have been made because some details of the scheme did not relate to the needs of the child. However appealing and inspiring the metaphysics lying behind the gifts and occupations, we have, as a matter of fact, gradually found it desirable to simplify and even to discard many of the exercises which were given to children in the early days of the kindergarten. Froebel was continually modifying these exercises during his lifetime, and it seems only consistent with his principle to expect further modifications in a country so different from his. It is not too much to claim that the complete form of education must be the work of the artist as well as of the philosopher. The universal principle lies not in something remote from experience, but rather in the adaptation of the form of expression to the common activities of every day. We do not need to worry about the preservation of great truths. Being the greatest forces in the world, they are thus beyond the need of temporary support. The clothing in which we dress them is as likely to conceal their loveliness as to reveal it.

Suppose in the question before us, we humbly follow the logic as best we may of Froebel himself, do we not see at once that the movement of a little mind, in the first years of school life, must be steady in the direction of his future, simple in rela-

tion to surroundings and precedence, spontaneously arising from activities common about him? We place the child in the school to develop, not to isolate him socially. His intelligence is by no means a hothouse plant to be forced to a profusion of blossoms too delicate for the winds of every day. His intelligence is experience, and we can enlarge it, give better means of enriching it, nothing more.

Parallel with the danger of underestimating the power of the young child, there runs all through the years of school the danger of overestimating his ability. The reason for dropping much of the minutiæ and of the symbolism of the German kindergarten has been that these were too remote. They presuppose a state of mind more sophisticated than seems to be found in the average American child. The mistake of taking from the future is not different in kind from that of robbing the past. In fact one effort on the part of the teacher may often accomplish both of these results, and leave the struggling mind either in a state of convulsive irritation, or in one of apathy. A few such efforts generally give to the pupil the power of absenting himself from the present with a nicety and skill which show judgment in an unexpected direction. The teacher who filled a paper on number work in developing a method of teaching the number one to seven-year-old children was belittling experience with number at first hand. She was, at the same time, creating an abstraction great enough and misty enough to frighten away any ideas from any child. She was assuming in this immature mind an interest in, and a power over, the metaphysical phases of number concept which put her entirely outside the world in which the child lives. Any such lesson must be harmful to the balance of the childish mind. It is putting the hammer of the giant in his tiny hand and expecting him to work. It is at the same time asking him to discount his previous acquirements in such a way as to make him distrust his experience as a whole. It is drawing on the future, putting in his way material for which he is not ripe, and is sure to bring on that attitude of indifference which is characteristic of that unfortunate being known as the *blasé* kindergarten child.

If we assume the power of re-starting a child in his intellectual method, we at the same time, in most cases, assume that into this fresh start the child will put a content heretofore unthought by himself. Taking this to be the honest purpose of the teacher, if she annihilates what natural means of support the little one has already gained, let us ask ourselves just what happens when we introduce a new method to one not yet fully conscious of his first way of thinking. The first step in the process is obviously the effort on the part of the child to discount his entire consciousness. Concrete and simple as that may be, his consciousness is his personality. It is what he has seen, felt, touched, smelled, and, to an extent, worked into a whole.

That doctrinaire teaching which interprets the child's thoughts and activities as fragmentary is a mere superficial judgment of some phases of the child's expression. If we call the mental life of the child fragmentary, it is conceivable that we have a right to take out a piece here or a piece there, and put a more beautiful piece into the mosaic. The greater mind thus becomes the only judge of beauty, but the engrafted beauty supposedly soon unites itself and grows a new kind of decoration for the little mind. If, on the other hand, we assume that personality is ever the same in its divine essence; that even the sucking child has its wholeness, and the schoolboy a larger possession, that they add to their world in a way we no longer know, that they are still one each to himself and with himself: if we grant this wholeness of nature to the child, it is logically inconsistent to assume the right to shape for him and to direct for him the materials and motions on which he forms himself, whether these elements of life be spiritual or sensuous. We cannot say that our fragment is not his whole. If we do so, we are not only overestimating his intelligence but discounting his experience and weakening his confidence in himself. We are affronting that wholeness of which he is a legitimate part. We are underestimating an apparently small experience which is his vital and magnetic whole.

From the nature of this subject, and the circumstances, there is no chance here for doing more than to raise questions—a

task at best somewhat unsatisfactory; on the other hand a task which has some encouragement in view of the fact that these questions are brought out at the beginning of a year of discussion of special points of work; of encouragement also, in the fact that this is a body of workers who will find tests and applications for any conclusions arrived at.

If I am wrong in suggesting these two dangers in the use of the kindergarten method, I have only in closing to ask pardon. If, however, there is a possible question as to the relativity to American conditions of this German scheme in all its details, and even in some of its underlying philosophy, we can do no harm by bringing up the question. Whatever is true we know will stand; whatever contradicts, or thwarts, the inner development of the American child, throughout all his school and his world, must go, not because we wish it, but because America is not Germany, our generation is not another; because from the processes of life are continually growing the forces that determine new processes.

If changes are to come, and are coming through the general social pressure, into the work here being discussed there is certainly no one present who desires not to be ready for such changes, and to look into the reasons for their coming.

ALICE C. DEWEY.

THE UNIVERSITY OF CHICAGO
LABORATORY SCHOOL.

HOW AND WHY WE LEARN.

II.

In my last article I endeavored to make clear that all of the language used to express metaphysical notions is borrowed from the physical world by analogy. For many reasons this is quite unfortunate, though it has its good side. Undoubtedly to primitive man just beginning to realize that he had a mind and that there were ideas and truths not belonging to the physical world, an independent vocabulary for metaphysics would have been impossible. It was only by the use of figures that he could explain in the vaguest way his dim metaphysical notions. The spirit seemed most like wind; the resemblance was closer than any other that he could imagine; and so he called it "spirit."

Out of these analogies grows poetry; but a figure ceases to be poetic when it becomes so common that the image is not brought before the mind by its use; and here comes the danger of metaphysics. We go on using the old figurative language when often the figures have lost their force, and yet we are not entirely free from the influence of the figures; there is, subconsciously at least, the notion which they suggest. Hence arise so much of the confusion and even the discussion which have marred and marked the field of metaphysics.

When a figure is used in poetry, no one thinks of pursuing it to the bitter end; it suggests a likeness sometimes very faint; it brings a picture before the mind and then passes out, but in metaphysics the figure is pursued as if it were a perfect and exact description. Now, analogy is not identity or even equivalence, and any analogy carried beyond its legitimate application runs into absurdity; particularly is this the case if the analogy be of a lower to a higher object, as of a material fact to a spiritual truth.

It has been pointed out by Dr. Harris and others that the

use of the biologiical analogy — that is, speaking of the mind in terms of life and of education as a vital process like growth — has its dangers. Of course it has. No one will deny a certain manifest absurdity if the analogy is carried too far.

It would be easy enough for any idiot to make fun of the comparison of a potato nourishing a body and a truth nourishing a mind. We put a potato into the stomach and it ceases to be a potato, is resolved into its elements, enters into new combinations, and ceases to have independent existence; while a truth is always a truth, and when learned is not destroyed. Yet in this seeming absurdity there is a closer and deeper analogy than at first appears.

The potato is not lost, but modified; also a truth is modified by the receiving mind; for, after all, truth is relative. No truth is the same to all minds or even to two minds, the simplest statement of fact producing a different impression upon different minds and different results as to the thing believed or known. That is, in one sense there is no absolute truth, but all truth is analyzed in the alembic of the knowing mind.

You will recall Dr. Holmes's John and Thomas: "When John and Thomas for instance are talking together, it is natural enough that among the six there should be more or less confusion and misapprehension."

Surely from all points of view the analogy of the mind to living things is infinitely more apt than that of the mind to things without life, and to speak of education as a process of growth through nutrition is certainly vastly nearer the truth than to speak of it as a process of filling a receptacle. Indeed, we might almost reverse the analogy. What lives if not the mind? Who can say that there is any life more real than the life of the mind? Do we not all believe that the only real, permanent, and genuine life is spiritual life, and that hence no analogy could be strictly apt except the biological?

It is quite evident that schools have, too many of them, based their work upon the physical analogy. Minds have been treated, not as living organisms, but as vacant receptacles. Consider some of the theories underlying school management.

We say that the children go to school to learn, and so they do. What does learning mean to those who send them to school and to those who teach them? Probably to the majority it means getting knowledge, producing what we commonly call "intelligence." This intelligence includes acquaintance with the common symbols used in reading, writing, and computing. It is a necessary foundation for any real educational work and is recognized as a sort of sub-stratum of all learning.

I will speak a little later of the character of the school which such a view of learning has produced, but it is evident that growth through nutrition does not enter the consideration of those who plan and conduct the common intelligence schools. Here plainly the mind is a receptacle into which is to be put a limited amount of useful information, to be there preserved against a rainy day. Some, still preserving the analogy of the receptacle, would greatly enlarge the body of knowledge, that is, would have a bigger receptacle filled by a greater number of facts.

As stated in the Report of the Committee of Fifteen, the purpose of school-teaching is to acquaint the child with the civilization in which he is to live; that is, to give him larger intelligence. Note carefully that mention is not made of growing into efficiency in this civilization, but merely of charging the mind with facts relating to it; the knowledge is an extraneous thing poured in. There is no suggestion of vital connection. This view, however, of the purpose of learning is a nobler one than the first, for it greatly enlarges the field of knowledge, but it manifestly defies any definition of education which its advocates would accept. It makes the norm the acquisition of knowledge, as if knowledge were a concrete, extraneous something, and not the effect on the mind, the growth of the mind itself. These theories accept unreservedly a physical, as distinct from a biological, analogy, for the educational processes.

There is another somewhat peculiar view of the object of learning, involving also its method, which has been the basis of whole systems of education; it is the so-called disciplinary view. It squints toward the higher biological view, but that is

all. It involves a strange mixture of figures. The mind is something to be trained to act in fixed narrow lines, as monkeys and horses are trained. This is the squint toward the biological view. It is also a tool to be sharpened while knowledge is the whetstone. This is the squint away from the biological view toward materialism.

This notion tends to the disregard of content and to the consideration of disciplinary value alone. It makes no difference what is studied so long as it furnishes discipline. Any old thing will do. The educational system based upon it is mediæval and theological in origin. Its type of efficient reasoning is that acephalous amusement of the schoolmen, the syllogism, through which a man sitting upon a pedestal may learn the world with his eyes shut. Such training should produce at its best a trick animal, at its worst a saw.

There is still another notion of learning involving both its end and its method, and it rests frankly upon the biological analogy. It is that learning is growth through nutrition, and that the business of the school is to furnish nutriment and exercise to the growing mind. It accepts without questioning the thought that truth is relative, and that it does not exist apart from the mind, of which it is a constituent part; that, when a truth is known, two things are modified, the mind and the truth as stated. The mind that knows a new truth can never be the same mind it was before; it has taken new elements into its being which are bound to affect it for good or evil without end. The statement of truth is necessarily modified by the apperceiving mind. No truth is the same in two minds.

Let us consider the kinds of schools that have been produced by these notions of the method and character of learning. The first or common intelligence notion is responsible for the poorest of all our schools, the school of the three R's and the so-called commercial school or the school of the one R, 'rithmetic. These schools represent the bare bones of education; it is scarcely education at all. They represent the misery of starved minds and are the cause of millions of unhappy failures. Occasionally

some lover of the past arises and attempts to apotheosize these schools of the three R's, but the people know better and we are getting away from them as rapidly as possible, though, alas, there are too many of them yet. Such schools, so poverty-stricken, so wholly inadequate for the training of citizens, are the products of the false analogy, the physical as distinguished from the biological.

The larger intelligence notion has caused a distinctly better school because the range of knowledge is broader, its content is richer, and hence the interest of the student is greater. It is the school of verbal culture, in which a great deal is learned about many things. It is at its best in its dealings with history and literature, and at its worst in its study of nature and social life. For it have been written innumerable books about things—nature books; art books; histories of literature dealing carefully with the dates of the births and the deaths of authors; histories of the world, containing long lists of dates and a few facts appended like tails to kites; information books on all subjects; in short, every possible substitute for real knowledge. It is the school of words, words, words.

But as the subjects dealt with are many and those generally recognized as important, it has inevitably led to higher interests than the first-mentioned school. The mind has been "stored" with much useful knowledge, some of which, in spite of the theory, has nourished it. The advocates of this notion of learning have been friends of higher education as represented in high schools and universities. They have believed the false proverb, "Knowledge is power," and followed the falser notion that knowledge is something that can be stuffed into minds. So naturally, the more stuffing, the more power. It follows, therefore, that they must of necessity be advocates of the greater stuffing machines, high schools and colleges; but such schools, whether elementary or most advanced, have fallen short of the true end of education. They have been foes of freedom, of individual initiative, of self-government, of real, as distinguished from verbal, culture.

The second notion of the proper function of knowledge in

education, the disciplinary, is responsible for the "formal discipline" fallacy with all its woes. This theory practically disregards the substance of knowledge presented. If the first is responsible for the grad-grind school, the second is responsible for the dull grind which kills the school, crowds out the discouraged, over-accents the law of the survival of the fittest, and deprives the school of joy and spontaneity, by forcing upon the child a law not his own.

This is serious enough in higher education, but in the elementary school it is deadly. Here it stands for the meaningless repetition of words, for rules without understanding, for language without thought, for drill without content, for life with neither interest nor joy. It is bare, barren, and altogether unlovely. On the ethical side it stands for the breaking of the will, the complete nullification of individual initiative; for absolute, unquestioning, unreasoning submission to external authority; for formalism, hypocrisy, spiritual anarchy; for force and violence. Its ruling motive is the convenience of the autocratic demagog, its scepter the rod employed to enforce the *argumentum a posteriori*.

Let it be remembered: the great failure in all these schools is the failure to consider the needs of the children, their internal, real, personal needs; their need for food whereon they may grow, as determining to any extent what should be given them. That this must all be determined from without, witness the Report of the Committee of Fifteen. Each child's own mental state may determine the order in which food shall be presented — soup, fish, meat, salad, dessert, but not to even the slightest degree what the food shall be; for he is not to be nourished, but to be supplied. This is a fatal error.

To be convinced that this statement is not an exaggeration, one needs but to consult any of the standard books on education, not excepting such masterly documents as the Report of the Committee of Ten and the Report of the Committee of Fifteen, especially the latter.

The apperception doctrine of the Herbartians is a partial recognition of the biological nature of education. Of course, the

writers upon the kindergarten all recognize the mind as living. Aside from these two classes of books the standard text-books upon education, and even upon psychology as applied to education, consider but two objects: the imparting useful information, and disciplining the mind—both ends to be secured through the logical application of established laws foreign to the minds of the children to be taught. Wise teachers have always, to a greater or less extent, sometimes half-consciously, recognized individual need. Theories and systems have seldom done so. The fact that each mind has a law of its own by which it grows; that this law cannot be modified by the application of any extraneous force; that no two minds are alike; that only so much of knowledge is really acquired as is apperceived and assimilated, and that the mind must have nutriment adapted to it—these are facts which, in the abstract, must appeal to all thoughtful teachers, but they are ignored in most plans for the organization of schools and the conduct of school education.

In the next article I shall endeavor to show the character of the true school which consistently treats the mind as a growing organism, and education as a process of growth through nutrition and exercise.

C. B. GILBERT.

DEPARTMENT OF PUBLIC INSTRUCTION,
Rochester, N. Y.

MORNING EXERCISES.

If, as most of us concede, the school of today is a social organization in itself, reaching out and touching other life to which it is closely related at every possible point, and so making its own life fuller and richer, then it would seem that all things tending to unify that organization and to make each individual member of it feel his relation to the whole, and his responsibility for the whole, are vital to the life of that organization. Whatever will put the child into possession of himself and his material, and establish the habit of using these freely with understanding and taste, for the profit and pleasure of the community, must make for the adaptability and power necessary to meet the changed conditions which the larger life of the world and the future are like to lay upon him.

The school is a place where we live together. A large portion of every day is spent there, and the interests of both teacher and children center about it, quite as strongly as about the home. We are one family, and it is essential to our unity, harmony, and success, that we have a time and place for coming together. The table, and the morning and evening prayer serve this purpose in the family. Each grade is isolated by the necessities of the case; each is about its own work. The morning exercise is a common meeting-ground: it is the family altar of the school to which each brings his offerings, his experiences, observations, or the music, literature, and art that delight him. It is the place where all the children meet all the teachers; where all co-operate for the pleasure and well-being of the whole; where all contribute to and share the intellectual and spiritual life of the whole; where all bring their best and choicest experiences in the most attractive shape at their command.

Many of our troubles with other people come because we do not know them, because we are shut up within ourselves, self-centered. Lacking knowledge of the personality, life, and

interests of others, we become selfish, and life becomes dry, flat, and stale as a bone. The coming together in the morning exercises makes us acquainted with each other, brings about a truly friendly feeling, and puts each child and teacher in contact with the personality of other teachers and other children, and with thought and work in other grades and departments. This meeting is a kind of substitute for the old-fashioned district school, where everybody knew everybody else and what he was doing, where the intercourse was not limited to the playground and the recess period. The little children in the district school learned more from contact with the older ones, and from listening to their recitations, than from their own formal lessons, and the older ones got that real insight into the interests of the little children which is apt to develop a helpful protecting sympathy. Community life is usually a restraint upon individual selfishness. Each child learns that the interest and happiness of the whole are his special concern, his individual responsibility; that he is a citizen of the community endowed with the rights and duties of citizenship.

The exercises are necessarily short which makes it imperative that the children, under the direction and with the co-operation of the teacher, plan and organize something that is in itself a unit, that has reasonable proportion and harmony; that is appropriate to the time and place and within their possibilities of expression. This gives steadiness and purpose to the result; resources are brought under the control of the will; the expression is orderly, careful, and accurate. Each child becomes a cause of things, a moving force, a power that makes things happen. He plans, he speaks, he acts for other people; he says and does something that he has reason to believe they will like to hear or see; he is expressing himself with reference to others whom he wishes to make understand him; he feels the influence of others; he feels their power and they feel his; unconsciously he rises to a higher consciousness of himself and his responsibilities. The conditions for cultivating powers of expression are ideal—an audience, and a child with something to tell.

There seems to be an innate desire in the heart of the human being to do things in company with his fellows. The lowest savages have their dances and processions; religion still has its ceremonies and its rites; we still have parades and social gatherings. The morning exercise satisfies this desire in the children. The children have the impulse to imitate or to act out in their own person things that they have seen or imagined, and the orderly meeting every morning gives a dignified opportunity for the satisfying of this impulse. The reducing and controlling of these dramatic manifestations until they become an expression of some phase of life which has been observed are a beginning in artistic production. Indeed, the morning exercise, like all social life, is a great stimulus to artistic expression. The children of the upper grades make a strong demand for dramatic expression of some kind, either through the drama itself, dramatic poetry, or debate. They are interested in the study of character and its development under certain conditions; and the drama, which is a simplified edition of life, gives them a view of what character and life really mean.

The children of these grades are shy of expressing themselves directly, but they will pour all their emotional life out through dramatic poetry and the drama. It seems an absolute moral necessity that they should have this outlet; it satisfies the social instincts and the love of organization and competition, and demands self-possession in speech and in the handling of the whole body for expression.

One of the most beautiful things about these exercises is the earnest way in which the children make their preparation to do their part, whatever it may be, and the sympathy and comprehension that they show in their choice of subject-matter, and the manner of its presentation. The spirit of helpfulness is stimulated in an unconscious and wholesome way; a grade or group of children will work together for this common end, without thought of self, absorbed in the subject and its expression. They will bring all the resources of the school to help them, teachers, library, museum, art, literature, and music; and will select unerringly whatever mode of expression best represents,

or conveys to the school, the thought. For example, if they are studying the Esquimo, his life, customs and dress, and they can make this clearer by painting or modeling, or by acting out some scene, than by speech, they do it, not because they happen to do these things so well, but because form, color, and movement more fully express what they wish to tell, and are with the little children easier to command than speech.

From what I have already said, you may see that the exercises grow out of the daily work of the school or out of the needs of the children, and are usually the culmination of some line of study. The subject is sometimes science, the telling or illustrating of nature observations; the story of some visit to the farm, the art gallery or work shop; history, current events — history in making; the massing of the literature and music of some special subject, or special day; or the stories that delight children's hearts. Thus, instead of interfering with the school work, they emphasize, reinforce, and vitalize it; give it form, steadiness, and purpose; and furnish the best test of the children's growth in power and skill.

These are a few of the subjects for this month, which will illustrate the thought of our plan: "The Farm," "Nonsense Rhymes," "French Games," "Trees and Fruit," "When the Leaves Turn Brown," "Swedish Handiwork with Specimens," "Norse Stories," "Current Events," "Music," "Gymnastics," "A Visit to the Swamp," "Hallowe'en," "Arts and Crafts Movement," etc.

The children often themselves suggest the subject, for when they are especially pleased and happy over some piece of work, they exclaim: "Let us have that for morning exercises!" It is their best they bring every time.

Music has always been recognized as a great unifying, socializing influence. People who sing together are, for the time being, moved by one impulse and one thought. It is the one art, if we except the dance, through which the spirit of the whole can be expressed in a single result. These daily exercises give opportunity for the whole school to live together for a few moments in the most intense spiritual way. Indeed, coming together seems a necessity for musical training. At this time

the children may also hear interpreted beautiful music which is yet beyond their own skill, and they learn to listen and to hear with intelligence, which is an essential part of musical training.

These exercises also provide the easiest, simplest, most natural, effective way of bringing the children each day in contact with a choice piece of literature: a fairy-tale, or some world-story, well written, and artistically arranged, a bit of romance or humor, a stirring lyric or an inspiring scene from one of the great dramas, embodying the central idea or general feeling of the exercise.

The children are sensitive to rhythm, tone-quality, and feeling, and they should hear the great literature read, simply voiced, interpreted; it should then be left to work its own way, unconsciously into their characters. One good thing every day means an accumulation of the world's beautiful thoughts. We cannot measure the influence immediately and accurately as we can that of more material things—the ability to add or subtract or to read a recipe for making candy; but we see the pleasure it gives now, and many of us can testify to the joy that early contact with great literature has brought into our lives. The children understand but dimly; they feel rather than understand; but even you and I understand only in part; each according to his measure.

Some of the best things appropriate to the children may be learned and recited by them when the subject and the occasion demand it.

I need not speak of the enrichment of the vocabulary, of the freedom of body, of effectiveness and beauty of speech, or of the joys of expression. Let me rather emphasize the opening of the eyes, the awakening of the soul to the beauties that often lie unnoticed all about until some bit of literature, some touch of art, reveals them. Some of us get at nature this way; she hides the beauty of her face from us until some other hand moved by a soul with deeper insight and wider sympathies lifts the veil. "Art was given for that; God uses us to help each other so, lending our minds out."

The special day exercises are but a broadening out of these

daily exercises in which the children take part simply and naturally and with as little self-consciousness as on ordinary occasions. They become accustomed from childhood to a large audience, to think and speak upon their feet so people can hear and understand. It is the habit of meeting an audience every day from the beginning that tells, that gives power, skill, and self-possession. The majority of children trained in this way never experience the agony of self-consciousness that an audience means to those educated to self-repression instead of self-expression.

The great racial festivals are but the culmination of some phase of life through which the race has lived; Thanksgiving, the harvest festival, nature's great climax; Christmas, the triumph of light over darkness, of good over evil, the birth of Christ, the Light of the world; Easter, the new life of the spring, the regeneration of the spirit, the resurrection of the Lord.

A study of the history of these festivals, and of the different ways of celebrating them, leads not only into the life, customs, and manner of dress of the peoples of the earth, but gives us glimpses of their spiritual life, their aspirations and hopes. It teaches the continuity of history, the oneness of the race, and the brotherhood of man.

Our national holidays are also the culmination of the working out of some great movement in the national life —Washington's birthday, the travail of the nation's birth and strenuous early life; Lincoln's birthday and Memorial day the climax of the tremendous national struggle over human slavery. The children cannot celebrate these days without some insight into causes and effects and into the trend of government. They cannot celebrate these days without some appreciation of the quality of the men, the high ideals of character, citizenship, and statesmanship, and the spirit of pure democracy that moved those who shaped the destiny of our country. These are surely wise teachings for all American boys and girls. I sometimes think that if the schools were in session on our first national holiday, the Fourth of July might mean more to the children than firecrackers and noise; that patriotism, self-sacrifice, and high deeds

might be taught through the study of the struggle for liberty, that culminated in the Declaration of Independence.

The value and scope of such exercises must be determined in the end, not by theories, but by the effects upon the life and character of the children, and the teacher in daily contact with them should be the best judge. Only by watching the children can we answer such questions as these:

What are the physical effects? Are there signs of nervous strain, excitement, self-consciousness, disorder, rudeness, and lawlessness; or is there a tendency to self-control, sanity, poise, courtesy, and order?

What is the effect upon the regular program? Do the exercises hinder, or do they refresh, uplift, and inspire?

Is the daily self-expression through the various modes an intellectual stimulus, intensifying thought and concentrating energy, or disorganizing and dissipating?

What is the effect upon the social life of the school? Are the children better members of the community, more considerate and helpful?

What is the children's attitude toward the exercises?

The children are not unconscious spectators of nature's movements. They watch the watering of the soil, the springing of the seed, the growth of the plant, and the ripening of the fruit and grain. They study fruits and seeds, their habits, preservation, and uses. Thanksgiving is the culmination of this study.

THANKSGIVING FESTIVAL.

March.
Music: "Come, Ye Thankful People, Come!"
Reading: Psalms.
Music: Canticle.
Music: "Hurrah, Boys!"
Music: "Wake, Viol and Flute!"
March.
Music: "Sing We a Song of the Harvest!"
Procession.
Music: "Come, Ye Thankful People, Come!"
Interlude.
March.

PARTY.

Refreshments served by sixth grade.

Seventh and eighth grades, and pedagogical class, in Puritan costume, acting as hosts and hostesses.

Kindergarten and first grade—games.

Second grade—Indian harvest dance.

Third grade—recitation and acting of the poem:

"Over the river and through the woods
To Grandfather's house we go."

Fourth and fifth grades—pantomimes from *Miles Standish*.

Sixth grade—French game.

The following interlude, written and spoken by Mrs. Maude Greene, of the pedagogical class, embodies the thought underlying this celebration of the festival:

"And God said, 'Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit, after his kind, whose seed is in itself, upon the earth,' and it was so.

"And God said, 'Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat.'"

All peoples, Jews and Gentiles, Greeks and barbarians, savage and civilized, have recognized some superior Power which yellows the grain and purples the grape, gives harvest and vintage, food and drink. In honor of this Giver they have held periodical festivals, holy convocations, and feasts of rejoicing.

In all times and places the celebration of the harvest has been primarily the recognition of one great Giver. The first and natural expression of this spiritual idea was praise and thanksgiving. Accompanying the song of gratitude, as its visible manifestation, was the offering of the fruit of the land and the sacrifice of the young lamb. The acknowledgment of one Giver was the recognition of one family. This realization of brotherhood was expressed in the sharing of the fruits of the harvest. The spirit of common rejoicing was manifested in dances, plays, games, and feasting.

The fundamental thought of the recognition of the supreme Giver, to whom belong the earth and the fulness thereof, is expressed in the program of today in songs of praise and thanksgiving, and in the reading of that majestic and immortal verse which was sung of old by David, the sweet singer of Israel.

As the material manifestation of praise and gratitude the autumn crowned procession brings offerings of fruits and flowers in dishes of gold and silver, and heaps them high on the altar of the Mother of Plenty. She receives these, and that no child may be deprived of his share in the harvest, she in turn gives them again to others of her children. She makes abundance and thanksgiving universal.

The spirit of common rejoicing is expressed in the Thanksgiving party. The children are the hosts; and each child brings his best for the entertainment and refreshment of the guests.

One of the pedagogical classes selected and arranged the reading printed below. This selection necessitated wide reading and a close study of the meaning and spirit of the text. The responses were not given in unison, but by individuals seated in different parts of the house.

Blow up the trumpet in the new moon, in the time appointed, on our solemn feast day. (Ps. 81 : 3.)

R.: The earth is the Lord's and the fulness thereof: the world and they that dwell therein. (Ps. 24 : 1.)

Bless the Lord, O, my soul, and forget not all his benefits. (Ps. 103 : 2.)

R.: Who satisfieth thy mouth with good things, so that thy youth is renewed like the eagle's. (Ps. 103 : 5.)

O, magnify the Lord with me, and let us exalt His name together! (Ps. 34 : 3.)

R.: I will praise the name of God with a song, and will magnify him with thanksgiving. (Ps. 69 : 30.)

It is a good thing to give thanks unto the Lord, and to sing praises unto thy name, O most High. (Ps. 92 : 1.)

R.: For thou, Lord, hast made me glad through thy works: I will triumph in the work of thy hands. (Ps. 92 : 4.)

O, Lord, how great are thy works! and thy thoughts are very deep. (Ps. 92 : 5.)

R.: He sendeth the springs into the valleys, which run among the hills. (Ps. 104 : 10.)

They give drink to every beast of the field; the wild asses quench their thirst. (Ps. 104 : 11.)

R.: He watereth the hill from his chambers; The earth is satisfied with the fruit of thy works. (Ps. 104 : 13.)

He causeth the grass to grow for the cattle, and the herb for the service of man: that he may bring forth fruit out of the earth. (Ps. 104 : 14.)

R.: And wine that maketh glad the heart of man, and oil to make his face to shine, and bread which strengtheneth man's heart. (Ps. 104 : 15.)

The trees of the Lord are full of sap. (Ps. 104 : 16.)

R.: Sing unto the Lord with thanksgiving. (Ps. 147 : 7.)

Who covereth the heaven with clouds, who prepareth rain for the earth, who maketh grass to grow upon the mountains. (Ps. 147 : 8.)

R.: He giveth to the beast his food, and to the young ravens which cry. (Ps. 147 : 9.)

Thou visitest the earth, and waterest it; thou greatly enrichest it with the river of God, which is full of water; thou preparest them corn, when thou hast so provided for it. (Ps. 65 : 9.)

R.: Thou waterest the ridges thereof abundantly; thou settlest the furrows thereof; thou makest it soft with showers; thou blessest the springing thereof. (Ps. 65 : 10.)

Thou crownest the year with thy goodness; and thy paths drop fatness. (Ps. 65 : 11.)

R.: They drop upon the pastures of the wilderness; and the little hills rejoice on every side. (Ps. 65 : 12.)

The pastures are clothed with flocks; the valleys also are covered over with corn; they shout for joy, they also sing. (Ps. 65 : 13.)

R.: Give unto the Lord the glory due unto his name; bring an offering and come into his courts. (Ps. 96 : 8.)

Let the heavens rejoice, and let the earth be glad; let the sea roar, and the fulness thereof. (Ps. 96 : 11.)

R.: Let the field be joyful, and all that is therein; then shall all the trees of the wood rejoice, before the Lord. (Ps. 96 : 12, 13.)

Let the floods clap their hands; let the hills be joyful together before the Lord. (Ps. 98 : 8.)

R.: O clap your hands, all ye people; shout unto God with the voice of triumph. (Ps. 47 : 1.)

Sing praises to God, sing praises; sing praises unto our King, sing praises. (Ps. 47 : 6.)

R.: For God is the king of all the earth; sing ye praises with understanding. (Ps. 47 : 7.)

Praise ye the Lord. Praise ye the Lord from the heavens: praise him in the heights. (Ps. 148 : 1.)

R.: Praise ye him, all his angels: praise ye him, all his hosts. (Ps. 148 : 2.)

Praise ye him, sun and moon: praise him all ye stars of light. (Ps. 148 : 3.)

R.: Praise him, ye heavens of heavens, and ye waters that be above the heavens. (Ps. 148 : 4.)

Praise the Lord from the earth, ye dragons and all deeps:
Fire and hail; snow and vapor; stormy wind fulfilling his word:
Mountains and all hills; fruitful trees and all cedars. (Ps. 148 : 7–9.)
Beasts and all cattle; creeping things and flying fowl. (Ps. 148 : 10.)

R.: Kings of the earth, and all people; princes and all judges of the earth; both young men and maidens; old men and children.

Let everything that hath breath, praise the Lord. (Ps. 150:6.)

R.: Praise him with the sound of the trumpet: praise him with the psaltery and harp. (Ps. 150:3.)

Praise him with the timbrel and dance: praise him with stringed instruments and organs. (Ps. 150:4.)

R.: Praise him upon the loud cymbals: praise him upon the high sounding cymbals. (Ps. 150:5.)

Praise ye the Lord.

Saying, Amen: Blessing, and glory, and wisdom, and thanksgiving, and honor, and power, and might, be unto our God forever and ever. Amen. (Rev. 7:12.)

MARTHA FLEMING.

THE UNIVERSITY OF CHICAGO
School of Education.

NOTES ON THE PSYCHOLOGICAL OBSERVATION OF CHILDREN.

I.

PSYCHOLOGICAL observation of children departs in no abrupt or radical way from ordinary observation. Psychology, it is perhaps unnecessary to remark, promises no peculiar, far-fetched, clairvoyant insight into the workings of a child's mind. It does not open up avenues of easy, telepathic access to the mysteries of the spirit. Nor does psychology justify belief in the efficacy of any amount of hocus pocus with scientific or philosophical terminology, or in any amount of performing with brass instruments, or upon brass instruments, although it does have to have a language, and it does have to avail itself of certain forms of physical apparatus. Psychological observation aims to make ordinary observation more effective and fruitful by stopping to look for a larger and more definite range of facts than ordinary observation usually has time to try to discover, and by making more explicit certain underlying relations or principles to which ordinary observation does not always penetrate.

It seems altogether likely, therefore, that psychological observation of children may well form a part of a course in psychology for prospective teachers, even when the course is purely introductory and elementary. There is nothing particularly novel in this point of view, but how such observation can best be organized and carried on is not altogether clear. It is not possible to determine without considerable experimenting what kind of guidance is most helpful; what things should be looked for; and where and when. These notes are simply notes on some of the experimenting of this kind which has been done during the present quarter with a beginning class in psychology. It will be evident that no one line of inquiry has been followed exclusively or worked very far, but I believe that extracts from the written reports of students reporting on their

observations will be found suggestive of several lines that could be developed further with profit.

Observation of any kind is not likely to get very far or become at all scientific without a consciousness of some clue, or of some guiding principle of unity. In the absence of such a clue or principle, we either get completely lost in the complexity of what we are trying to observe, or else we go to the other extreme and say that we see nothing worth mentioning ; we thought there was something to see in this region, but we must have been fooled by a mirage. Thus students in the class in psychology who have difficulty in making reports on their observations of children seem to gravitate toward one extreme or the other. Some complain that the children are so changeable and contradictory that only confused impressions can be carried away. Others say that they saw nothing in the children worth mentioning, that it was a lesson in arithmetic or in writing, and that the method of teaching it was the only thing they noticed—thereby seeming to suggest, though unwittingly, that a model school which should aim merely to demonstrate certain methods of teaching might just as well make use of rows of dummies or wax works, as of live children.

The students taking this course have been given various suggestions and clues, most of them growing out of their own unaided observations, such as to note what things and what activities seemed to appeal most strongly to the interest of the children, what were the signs of attention and of inattention, and what fluctuations in attention could be detected. They have also been made more or less aware of a principle of unity, or what may be termed the psychological unit.

This principle or unit may be described in various ways. In simplest terms the unit is the *conscious act.* In more technical terms it is the sensori-motor circuit. After the analogy of the reflex-arc concept, it has been more customary to speak of the sensori-motor *arc.* If it be an arc, it is just as much a motor-sensory as a sensori-motor arc. The term " circuit " names the mutual and complementary relations of the two arcs. In less technical language, our acts, those which psychology studies,

flow from and depend upon certain states of consciousness—this corresponds to the sensori-motor arc. At the same time, our states of consciousness report and depend upon our acts—this corresponds to the motor-sensory arc. No separation exists between the two sides. For example, the very act of writing these words, which was dependent in a measure, upon a certain state of consciousness, a mental image at least, if not an idea, becomes in its very expression a stimulus to further states of consciousness. The unit of this whole round of conscious activity, or of any round of conscious activity, is the sensori-motor circuit. It is also described as the co-ordinating or adjusting of stimulus and response. Various degrees and qualities of consciousness characteristic of this process have been discussed in class, ranging from habit to attention.

As in the case of the units employed by the various physical sciences—the atom, molecule, and cell, for example—the sensori-motor circuit represents the lowest terms to which the reality studied can be reduced without annihilating or getting outside of the reality itself. The unit in each case, however, is not a mere reduction to lowest terms, a mere abstraction. It has been stripped of concrete details, to be sure, but it has been stripped for action, as a runner is stripped for the race. It becomes a principle of unity, a principle of guidance, of interpretation, of growth, of control.

It cannot be expected that any one of these scientific units should have much apparent meaning or value for a beginning student. The general or controlling principles of a science are not appreciated at the start, no matter how large they may be written on the first pages of the text-book and no matter how conscientiously committed to memory and glibly recited. They are more commonly the last things to be fully appreciated. I should suppose that the atom and molecule to which the student of chemistry is introduced early in his course must be very different from the atom and molecule he learns to know and use when he studies stereo-chemistry. It does not follow, however, that a student should not be introduced to a principle until he is ready to appreciate it—for one thing, that time would

never come, under that condition. The business of an introductory course in any science is to *introduce;* that is, to present the student in some courteous way, in some way that should not insult either nature or human nature, to the principles of thought and action which constitute that particular branch of learning as a science. The point is perhaps too obvious and commonplace to have mentioned, yet I wish I could make it more emphatic, in the face of so much superstitious confidence in the magic touch of the externals of science—laboratory materials and apparatus, the accumulation of facts, and the production of tangible results; and especially in the face of so much impatience with the slow growth in the mind of the concepts of science—now vague, impalpable, and elusive, shifting like clouds and perhaps obscuring the light, and only after long delays precipitating and fructifying the earth.

But my purpose was simply to write a brief introduction to some extracts from reports on observations made by members of a beginning class in psychology. The following extract may be taken as illustration of the psychological unit in one of its simplest forms:

> In the first grade an experiment was being made — some plates were put on the table and the children asked not to touch them. The teacher had hardly made the request when one boy put out his hand and touched a plate. She spoke of again. He put his hands down as if to hold them. But it was only a moment before they were up, reaching for the plate again. He seemed to have a desire to do as he was asked and, I think, intended to do so, but his will power was not strong enough to control his hand.

Several members of the class have been studying the character of the responses to stimuli made by some of the children, noting especially whether, on the one hand, responses or reactions are made in a pretty immediate, direct, intense, or disconnected way, with little or no "stopping to think," or, on the other hand, whether the responses are slow, delayed, thoughtful, self-conscious, or switched off possibly into unseen channels of association or of emotion. These expressions are not intended to be synonymous, but merely suggestive of a few of the various possibilities. A child whose responses are prevailingly of the former character might be called a "motor" child; one of the

latter character might be called a "sensory" child, following the very convenient but somewhat misleading nomenclature suggested by Professor Baldwin in his *Story of the Mind.*

I will select first a number of extracts from reports of various students which were made with reference to a child, who seems to be a pretty clear case of the "motor" type.

A child in the first grade has interested me very much. He is active, impulsive, and quick to respond to every stimulus. Everything he does seems to be done without the least thought of why he is doing that thing. If told to do a thing he thinks only of the act and listens to no further details, but gets up to do it. For example, one day he was put on a stone committee, which was to gather stones on the *day following.* The latter part of the directions he did not wait to hear, but taking his partner *started out at once* to gather stones, and of course had to be called back. This thoughtless activity has led to selfishness on his part, I think, in that he responds so quickly as to think of no one but himself. He is also, I think, very domineering.

(The early and definite locating of a child under some familiar ethical category is certainly not to be encouraged. The average moral "size-up" of a child is usually the most immoral thing that can be done for him. But the relating of a moral characteristic to some psychological characteristic is a very different proposition, and one from which much help might be expected.)

I have still been interested in watching a boy in the first grade who is of an impulsive temperament. I have noticed that when a subject is particularly interesting to him he wants to talk and act continually. All his senses seem to be immediately excited to activity. A very good illustration of this was brought out in a recent lesson in science, in testing different stones for their composition by pouring acid on them. Most of the children were content merely to watch the process without touching the stones unless they were told. Not so with this child. Even after being told that he might burn himself if he touched the stones, he could not resist the temptation of putting his fingers to every tested stone.

The attention of the strongly motor type of child is hard to hold, because he has a tendency to seize upon the action before all the conditions are presented. Nor does he often want to be helped if he can possibly help himself. Only after he has tried and failed does he seek conditions or assistance. A child of that kind in the first grade was attempting to write his name on the board. He had done it before, but the child next to him was writing backwards; so imitation got the better of a slightly formed habit and he too began to write backwards. He held to the correct form, but reversed the letters [mirror writing] till he reached the third letter of his name, the letter

l, noticeable for its height. Then habit reasserted itself and he made the letter correctly. Consequently the downward stroke of the *l* cut into the letter he had previously formed. He at once stopped; looked at it, and tried again, with the same result. After a verbal suggestion that he was writing backwards failed to help him, someone began to write his name correctly on the board before him; but he would not wait to see it finished. He tried again — still backwards. He saw that it was wrong and looked up for help. Watching the whole word written seemed to impress the direction on his mind, and he wrote the word from left to right.

Imitation is very strong in the motor type of child. He wants to "show" how the thing of which he is talking looks or is done. He is likely to accompany the word or action of another with action. Wednesday morning the first grade was listening to a story. One child kept breaking in upon the story with suggestions, but at last his attention was fixed. The teacher was describing a valley, level in the middle, with mountains on each side. As she showed with her hand the level and steep parts, the child with his head far forward, imitated every motion, even continuing the motion after she had ceased.

The extracts just cited serve to illustrate the extreme suggestibility and impulsiveness of the motor child. These qualities usually make for openness and frankness of character. His difficulties usually lie pretty close to the surface. As Professor Baldwin points out in the work already referred to (chap. viii, p. 174), the motor child is continually "'giving himself away,' so to speak, by constantly acting out his impressions, and so revealing his progress and errors."

The "sensory" child, on the other hand, presents a far more difficult problem. Observation, unaided by experiment, is often baffled by his actions or lack of actions. It is puzzling to try to make out what is going on behind the scenes. "Where the child of movement speaks out his impulsive interpretations," to quote again from Professor Baldwin, "this one sinks into himself and gives no answer."

I am sure the caution of the following report is to be commended:

The child I have been observing in the kindergarten is slow in responding to stimuli. He is a child who, I believe, is maturing very slowly. He has what I would call a dull, dreamy expression, but I have not been able to tell whether this is his natural expression or whether his mind, instead of being interested in the story or game at hand, is wandering. The teacher

had told the children the same story several times, so as to have them become familiar with it. One morning she told them they might help tell the story. They all seemed very eager to tell it, except this one child. He sat very quietly while the story was being told. Now whether his mind was concentrated on the story at hand or whether it was wandering, I could not tell.

The "sensory" child is likely to be far less open to suggestion than the "motor" child, far less imitative, as the following incident with referenee to the same child will illustrate:

One child in the kindergarten has been of special interest to me since the commencement of the observation work. I have worked with him at various things and he showed no interest whatsoever. [The fact that a student should take special interest in a child, because he showed no interest whatsoever, is rather significant, perhaps, of the kind of response observation work may call forth.] When told to do anything he would do it slowly, and carelessly, and aimlessly. All the little ones were deeply interested in making envelopes, for example, with the exception of this one child. He would fold the paper wrong, and if he happened to fold it right, it would be far from accurate. I would explain again and again how the seed would fall from such poorly made envelopes. He would listen and then make the next one as poorly as before.

There has been a great variety of observations on interest and attention, but it is impossible to arrange extracts from them in any systematic way. Taken in themselves they are pretty fragmentary and scattered, ranging all the way from the shifting play of interest and attention in the kindergarten to a case of highly specialized interest in one of the upper grades; but nearly every one would serve as a suggestion, a point of departure, for further observation and study.

The kindergarten children were asked to sit down in their chairs and pay attention to the drawing of a picture by one of the teachers. They are not often called upon to sit still and do nothing but attend, and it was interesting to note and compare the different ones. Most of them soon tired of watching the development of the picture and began playing with those nearest to them. Two little girls paid attention in a way — they were not interested in the real development of the picture, but watched it closely to make some remark to each other about every new part. All were greatly interested in the picture when it was completed, but paid very little attention to it until then. They had a motive or an end in view for attending to the development of this picture, but they were too young for such a vague motive to hold them to attention.

It will be noticed that this excellent bit of observation tends to fall into the "psychologist's fallacy" at the close. The children may have been *supposed* to have a motive for attending, but that they really *had* a motive, or that their tender age could keep an actual motive from operating, is exceedingly doubtful. A motive that can simply be entertained, that does not affect conduct, that does not stimulate some response or attitude, is a contradiction in terms. A motive that is not motor is a psychical vacuum, which human nature abhors. This is not aimed at the report just quoted, which may have really meant something very different; but aimed—well, into the air, if you like.

There have been some reports on what appear to be the keenest interests of the children of the first two grades. I will make selections from two reports bearing upon the interest in constructive work, which, on the whole, seems thus far to be the keenest of all. The question has been raised as to whether the social interest, sometimes called the altruistic interest, the interest in the social use to which the thing constructed is to be put, is not the dominating interest. The evidence bearing on this question has come out mostly in oral discussions, which I am unable to quote, but it tends to show that such is not the case. The interest in construction *per se* is livelier and more persistent. It can usually be turned and enlarged, if desired, to include the social interest. The whole matter, it need hardly be said, is one that will repay further investigation.

Those things which the children can do and feel that they are of some value will be the things that interest them most. For example, the second-grade children have been interested in materials and fabrics, because they were choosing some material that would make the best holders to use in the domestic-science room. These holders were for the rest of the school, so *we see* they were to be of some use and were to be for somebody's comfort. *Therefore* the children were interested.

The *italics* are mine. Here we have another beautiful case of the "psychologist's fallacy." I do not know of a better example of the tendency so prevalent among us teachers to read our own sophisticated moral motives into and back of the acts of little children. I am not overlooking, I hope, the value and

suggestiveness of the report just quoted in raising the question regarding the relative intensity of interests.

Here is an extract from another report bearing on the same point; *italics* mine:

All the children of the second grade are very much interested in weaving holders; so much so that yesterday morning before school they began to work on them without being told. They know the need of holders and would probably not care to make them if they knew no use to which they might be put. *Still it is not their use alone, I believe, which stimulates the children to make them. For the most part the interest is in the activity itself.* Children want to be doing something, using their senses, all the time.

It is noticeable that most of the observations bear upon the character of the motor responses, children being far more accessible to observation on this side than on the side of sense experience. It is possible, however, in some cases to get at the sensory side, as the following extract from the report, just quoted in part above, will illustrate. The incident may also be taken to illustrate the inhibitory effect of a slightly unpleasant sense experience.

Each child chose the colors with which to make his own holder. One boy chose two that went well together, yellow and blue, but gave the yellow to another child, who needed it, and took green to finish his with. When he had woven the two colors together for a time, he stopped working and said he thought it was not pretty; some other color would go with the blue better than green. His interest had subsided, and a teacher had to persuade him to go on again. This child seems to be more sensitive to harmony of colors than most children.

The following brief extract suggests a good lead for further observation, especially on the sensory side:

As a whole, the children in the kindergarten are very quick to respond to stimuli of the coarser nature, while those of the finer, such as delicate touch, call forth little response. . . . . They do not mind if their envelopes are folded unevenly or cut in the wrong place. In fact, they would not notice it if their attention were not called to it by the teacher. . . . . Their observation out of doors is very keen as compared with that of an older person.

In the following report there is an interesting and significant attempt, it seems to me, to connect the sensory and motor sides; that is, to make the "circuit":

This morning I was practicing writing on the blackboard in the first grade

room, before school. One of the children, noting the continuous line of *m*'s I was making, took up a piece of chalk and also began to make a line of them. His line, instead of being straight, first went up, then down. He did not notice the crookedness of his line, however, until a straight line was drawn just below the *m*'s I had written. Then he began again, this time keeping the lower strokes of the *m*'s quite uniform, but the upper ones still uneven. After noticing this, he watched carefully both the top and bottom of the letters, and succeeded in getting the letters quite uniform in size, but in a very crooked line. It was evident that writing in a continuous straight line involved more new sensations than he was able to attend to at one time. Neither uniformity of size, continuous movement of the arm, nor measuring distance visually, were as yet fixed pathways in his brain. Hence, when his attention was focused on the one action, the others suffered accordingly, since his muscular apparatus was unable to adjust itself to fit so many new, incoming sensations.

It is worth while comparing this report with the selection first quoted in this paper. In that selection the "will" was appealed to as affording a sort of explanation. In this report note that the "muscular apparatus was unable *to adjust itself* to fit so many new, incoming sensations." It is likely, of course, that there might be considerable difference of opinion as to explanations in either case. After all, the important thing to note is that *some* kind of psychological analysis and interpretation was brought to bear upon what might otherwise have been passed by as an incident too trivial to mention.

The point of this paper is intended to be pedagogical rather than psychological. I have tried to show by means of a few illustrations how, in the course of an introduction to psychological principles, the minds of prospective teachers may be turned to an objective, analytical, and, in some degree, scientific observation of children. There are those, no doubt, who would question the desirability of endeavoring to develop this attitude of mind in prospective teachers, fearing lest it should dull and harden that sympathetic and personal touch which is the essential qualification of the artist teacher. The contention is an important one, and one that cannot be fully discussed within the limits of this paper.

It should be freely granted that one who did not share in the well-nigh universal impulse of interest and sympathy toward

children would do well to select some other calling than that of teaching. But at the same time, I should maintain that there is a direct relation, a balance, between the range and play of objective, intellectual, scientific interest in children, on the one hand, and depth and genuineness of sympathy, on the other; and, further, that the sole guarantee of the latter is the former. The sign that these two have been developed is what we call the *sense of humor*, which is the life-preserver, if not the life, of the teacher. Without a sense of humor a teacher is either a drudge or a despot. Humor kindles and glows only when fed by objective relationships and incongruities perceived by a discriminating intelligence. It may be analyzed, perhaps, by one who manifests it not; but it *lives* by an objective, intellectual habit. It has been said of a certain portion of the human family, by one of their own number, that they take themselves too seriously and the world not seriously enough. No matter how unjust and uncalled-for such a remark may be, we should all admit, probably, that it does not describe a state of humor or of sympathy. It was said of a certain teacher that, whenever the pupils did wrong, she felt bad, instead of *looking into it.* The application is obvious. I recall hearing a distinguished physician, who had been praising a young and brilliant surgeon, say finally: "But yet, after all, he is too cold, too unsympathetic. *He doesn't* KNOW *enough!*"

All this proves nothing, some one may say. Perhaps not, but it may help to define a point worth further investigation.

WILLARD C. GORE.

THE UNIVERSITY OF CHICAGO,
School of Education.

SOME STEPS IN THE EVOLUTION OF SOCIAL OCCUPATIONS.

II. FOOD.

Hunger never fails. All other appetites have their periods of activity and stagnation; passions wax and wane; emotions are casual and capricious. But the continuous discharge of the function of nutrition is interrupted only by the final interruption — death. — HENRY DRUMMOND, *The Ascent of Man*, p. 200.

HUNGER has ever been and doubtless ever will be the most permanent impelling force of mankind. It was the sole stimulus to the earliest occupations and still operates as a most powerful motive in determining the activities of the race. No occupations affect the lives of individuals so closely as those which are devoted to supplying man with food. No others are so fundamental to the various forms of institutional life.

So potent a factor is food in the early development of mankind that it is almost possible to write the history of a people from a knowledge of the foods that they ate. When this is supplemented by a knowledge of their manner of eating, we have a very good index of their culture. The late Professor Brinton regarded food as a most important factor in determining the destinies of people[1]. He stated that differences in races depend essentially upon those differences in organic development which result from differences in nutrition.

Coincidences in the Genesis, the Exodus, and the Leviticus traditions of different peoples are traceable ultimately to a similarity in their methods of procuring food. Differences in the same are likewise traceable to fundamental differences in these methods. Although it would be an extreme position to state, as some authorities do, that there is no activity in life that cannot be traced back to the food-process, there is a truth in the statement that it would be well for all to recognize.

The most important question of primitive man is not what to eat; that question is decided by the resources of his environ-

[1] DANIEL G. BRINTON, *Races and Peoples*, pp. 40, 41.

ment. It is, rather, how to get possession of those materials which, though present, baffle his power to control. His difficulty was greater than that of the animals. The food of the lower forms of animal life is brought to them. They have merely to appropriate it as it comes. But with advance in complexity of structure, the difficulty of procuring food increases. So great is this difficulty that in the higher forms of animal life each species has solved the problem by setting aside certain organs to be devoted chiefly to this task. Animals have solved the problem of procuring food by changing the very texture of their tissues. Man alone has worked out a somewhat different method. The superiority of man's method consists not in a change in bodily tissues alone, nor in a more skilful use of any bodily organ, nor even in the mere use of a great variety of bodily movements, but in the subordination of the entire body to the service of the mind.

In this study let us attempt to discover the way in which man acquired, through the pursuit of the simple occupations of every day life, not merely free hands, but a free mind. Let us seek to discover how man developed himself through his occupations, and when we have learned the lesson, let us not merely seek to apply it in adjusting the conditions that shape our own lives, but let us secure such conditions in our public schools as will contribute to the most normal growth of the child.

It would be impossible, in the present state of knowledge, to trace the complete evolution of any occupation from its earliest inception to the latest step in its development. For a time, at least, we must content ourselves with considering such steps in the process as we are able to determine, trusting that at some future time the mists which now obscure great regions of the past may be dispelled by the light that comes from the introduction of more and more refined methods of research. In turning our attention to those occupations which arose in response to the need of food, the following outline, which is a slight adaptation of one that I have used in another place for a different purpose,[1] may serve to indicate, in a general way, the stages

[1] *The Place of Industries in Elementary Education.* Chicago: The University of Chicago Press.

of development through which any occupation that keeps pace with the general advance passes through. Knowing that agriculture and domestic service are belated forms of industry, it may prove interesting to seek to discover what the conditions were which retarded their development and how more normal conditions may be secured.

EPOCHS OF INDUSTRIAL DEVELOPMENT.

I. The house industries or the period of domestic economy.
  1. The hunting stage.
    (*a*) The river-drift people. } Pleistocene period.
    (*b*) The early cave-dwellers. } Pleistocene period.
    (*c*) The later cave-dwellers. } Pleistocene period.
  2. The fishing stage. } Prehistoric period.
  3. The pastoral stage. } Prehistoric period.
  4. The agricultural stage. } Prehistoric period.
  5. The age of metals. } Prehistoric period.
    (*a*) The age of copper. } Prehistoric period.
    (*b*) The age of bronze. } Prehistoric period.
    (*c*) The age of iron. } Prehistoric period.
  6. The city-state. } Historic period.
  7. The feudal system. } Historic period.
II. The handicraft system or the period of town economy. } Historic period.
III. The factory system or the period of national economy. } Historic period.

In order to facilitate the process of forming sequences which shall embody the cumulative results of the entire study, the occupations of each period will be considered with reference to such topics as are included in the following outline:

OUTLINE FOR THE STUDY OF A PARTICULAR PERIOD.

I. The people: Their equipment at the beginning of the period under consideration.
II. The character of the area inhabited with reference to its fitness for supplying an abundance and a suitable variety of nutritious foods.
III. The processes involved in the satisfaction of the need of food.
  1. Production.
    (*a*) Production of raw materials.
      (1) Processes.
      (2) Motive power.
      (3) Mechanical appliances.

(*b*) Manufacturing.
(1) Processes.
(2) Motive power.
(3) Mechanical appliances.
(*c*) Distribution and exchange.
(1) Processes.
Storing.
Preserving.
Carrying.
Trading, et cætera.
(2) Motive power.
(3) Mechanical appliances.
(2) Consumption.
(*a*) Processes.
Cooking.[1]
Serving.
Sanitation.
(*b*) Motive power.
(*c*) Mechanical appliances.

IV. Influence of foods and the occupations which are associated with them upon the individual and the social development of the people.

V. Educational opportunities presented by the occupations of the period.
1. Practical activities of value for educational purposes. Significance of [each with reference to—
(*a*) the physical development of the child.
(*b*) the intellectual development of the child.
(1) As a means of securing a free play of mind.
(2) As a means of laying the foundation of the physical, natural, and social sciences, and the arts.
(*c*) the development of the ethical nature.
2. Suggestions regarding the use of these materials in the different grades of the elementary school.

Remains of river-drift peoples have been found in various parts of the world. Although these remains are meager, the combined efforts of the anthropologist, the archæologist, the paleontologist, and the geologist have enabled us to reconstruct, within fairly definite limits, the life of the period. The fact that remains which have been referred to the early part of the mid-Pleistocene period are found in widely separated regions, indicates that many parts of the earth were occupied by man in that remote

[1] The question may well be raised whether cooking should be considered under the processes of production or consumption.

time. Similarities in the skeletons and implements that have been found indicate to some minds a common origin and cradle-land and a subsequent dispersal; to others they indicate merely similarity in structure and in conditions of life.

Our race is made up of many elements which for long ages remained in a plastic condition. The nomadic form of life supported by such universal customs as exogamy, and the various forms of conquest, resulted not merely in a transference of peoples from one locality to another, but in a gradual assimilation of peoples. There are doubtless many cradle-lands of our race. The habitable regions of Europe, during that long period which preceded the prehistoric epoch, were all occupied at various times by scattered populations. There are many reasons for believing that the river-drift people, who occupied western Europe during the early part of the mid-Pleistocene period in company with the mammoth and the cave-bear, form one of the constituent elements of our race. The appearance throughout each period of historic times of a physical type similar to that of the skeletons that have been referred to this period certainly points in that direction. For the purposes of this study, however, it is sufficient to recognize the fact that even though the particular people just referred to may not form an element of our race, our forefathers, in their earliest state, must have lived under similar conditions and occupied themselves in much the same way.

The skeletons that have been found show that the river-drift people were short but powerfully built. They must have walked with a bend at the knee, for their thigh-bones were curved in a curious way. Their skulls were long and depressed and were marked with strong brow ridges. Their jaws were massive and powerful, the lower one sloping downward and backward on account of the absence of the chin prominence.

From the results of the study of comparative anatomy,[1] we may conclude that the great toe was shorter and smaller, the heel bone less strongly made, and the arch of the foot much flatter than it is in modern types. The river-drift man undoubt-

[1] FRANK BAKER, *The Ascent of Man*. Smithsonian Report, 1890. Pp. 447–66.

edly had greater control over the movements of the toes than modern man, and less control over the smaller muscles which control the movement of the arm and hand. In fact, man's hands were not yet free from the function of locomotion, for he had not yet secured dominion over fire, which later afforded him protection from the beasts of prey. Accordingly the trees offered him the safest places of refuge; and he no doubt found it more prudent to swing from branch to branch, as he exploited his environment in search of food, than to expose himself to danger by walking upon the ground. It is this fact rather than kinship with the apes, which has caused the river-drift people to be called tree-dwellers.

As long as man was obliged to seek protection in the trees, he must have had difficulty in maintaining an erect posture. Indeed it is only with difficulty that civilized man can maintain an erect posture for a prolonged period. Yet he has a great advantage over the river-drift man; for the large muscles of the back, the buttock, and the calf of the leg, which are necessary in order to maintain an erect posture, were not well developed in that early age.

The inferiority of the river-drift man was due more to his lack of discipline and experience than to any inherent quality. His brain capacity was nearly equal to that of civilized man. He was limited in his resources, because he had to work out his problems from the beginning. He was at the short end of the lever. Only gradually did he become conscious of his own power; but as he did so, he laid the foundation, slowly but surely, of much of that which, in a more highly developed form, we prize in our life today.

The geography of Europe during the Pleistocene period was different in many respects from what it is at present. There were differences in the courses of rivers and in the contour of the continent. The land that now constitutes the British Isles at that time was a part of the mainland. The climate, during the early part of the period, was but little removed from the tropical, presenting neither extremes in heat nor in cold.

The prevailing animals were those which now characterize

unsettled regions in tropical and temperate climates, together with several species which have since become extinct, and the musk sheep and the woolly rhinoceros which came down from the North during the mid-Pleistocene period. There was surely a sufficient variety in the animal kingdom, and man soon learned ways of compelling the less formidable creatures to pay tribute to his most pressing need.

A considerable variety, too, was offered by the vegetable kingdom; but it did not offer food-stuffs in such an abundance as to deprive man of the stimulus that comes from the struggle for existence. The plains and uplands, which were covered with wild grasses, afforded a plentiful supply of food for the grass-eating animals, but were not suited for human habitation at this time. Man had not yet learned to capture the wild beasts, and his digestive system, though frequently called upon to perform marvelous feats, was not equal to the task of transforming grass into nutritious materials in sufficient quantities to enable him to maintain the struggle for life. For this reason, as well as on account of the fact that the river-drift man who exposed himself to the dangers of a grassy plain was apt to become the food of some wild beast, the grassy plains were avoided by man at this time.

The safest regions for the river-drift people to inhabit were well-wooded ones; but there were differences in these of the greatest import with reference to the human life of the time. Dense forests have never offered a sufficient inducement to savage peoples to cause them to become thickly populated. The difficulties that they present are such as to baffle the powers of people who have not made considerable advance in the mechanical arts as well as in the arts of living and working together. At this early date, when the water courses had not been cleared of natural obstructions, the dense forests along their middle and lower courses partook too much of the nature of malaria-breeding swamps to permit man to inhabit them, even though they had offered him a sufficient inducement in the way of nourishing foods. But it is not in the dense forests that man finds wild foods most easily. The thick foliage of the trees

obstructs the passage of the sun's rays and interferes with the development of nutritious roots, bulbs, nuts, and berries, which everywhere occupy an important place in the domestic economy of primitive peoples.

Repelled alike by the grassy plains and the dense forests, the river-drift people were attracted by the resources of the wooded hills near a river, a lake, or a spring of fresh water. Some well-known authorities still believe that man's earliest home was upon the seashore. Though that may be true, this study, which is based upon the records that have thus far been discovered, must begin with the life of man upon the wooded hills. These wooded hills of western Europe, which afforded available food supplies, as well as protection, were undoubtedly the cradle-lands of our race. Under the stimulus of hunger, the river-drift man exploited the resources of the wooded hills. The oak trees yielded acorns, the evergreens bore seeds, the wild plums offered their bitter fruit. Wild peas and beans, seeds of various kinds, leaves, especially the thick leaves of the wild cabbage, and several varieties of wild berries could be gathered at different seasons of the year. Imbedded in the earth, there were the stringy-rooted carrots, ruta-bagas, and turnips. So far as man was able to appropriate these materials of the vegetable kingdom to his own uses, they became elements in his food supply. The animal kingdom, too, very early was compelled to pay man tribute. The way in which man gradually rendered the various resources of the wooded hills available for human needs is the first chapter in the evolution of social occupations. It is this subject to which attention is next invited.

KATHARINE E. DOPP.

THE UNIVERSITY OF CHICAGO.

NATURE STUDY FOR THE GRADES.

WILBUR S. JACKMAN.

THE stress of the winter season taxes the powers of resistance in the living thing to the utmost. The gradually lowering temperature brooks neither excuse nor delay in those preparations which are necessary to insure the safety of the creatures that, but a few weeks before, would have been entirely blasted by a single hour of frost.

It is most natural, therefore, to turn the attention of the pupils, at this season, to the peculiar conditions assumed by living things in the winter, and to study the various protective devices employed by animals and plants. Most of the birds, thanks to that wonderful invention, the feather, have sought safety and comfort in migration; but the insects, the mammals, the earthworms, the plants, and man have each worked out certain plans that enable them to remain on the spot.

To the naturalist the winter is a season for observation not less interesting than the summer. The means adopted by the buds as protection against the season are as interesting as those used in summer by the leaves in seeking the light. The sudden and almost mysterious disappearance of the showers of seeds that lately ripened in enormous quantities is only paralleled by the silent withdrawal of the birds. The mud and slime at the bottom of the ponds and marshes hold a counterpart of the life that swarmed in the water in summer. Under stones, in the cracks of the bark of the trees, and in protected situations on the branches, are the cocoons, the eggs, and other forms of insect life that have developed a strength of endurance of the cold that is utterly beyond the powers of man.

The very first step in the study of these strange and apparently inhospitable life-conditions requires the thermometer, the use of which even the youngest children should learn. With this in hand, they may soon acquire some idea of what must be

endured by the buds on the twigs and by the cocoons swung to the branches; by the seeds in the surface inch of earth; by the roots a foot or more below; by the fishes in the water under the ice; by the seeds and small animal forms in the mud under the water; and, through these observations, they will soon find out within what narrow limits of temperature their own comfort lies.

From a study of life that is subjected to natural conditions only, it is an easy transition to the study of the means used to provide artificial heat and to a consideration of those conditions of life and of those peculiarities of structure and function which make it a necessity. The following outline suggests an order of topics in the study. It is the intention to have each grade, with the guidance of the teacher, select from the entire outline points that may be observed. Experiments should be performed when they are needed to answer some question, and they should come mainly through the inventions of the pupils themselves; otherwise they are liable not to be appreciated, and then they are of doubtful value.

It is of great importance, however, to keep the subject before the pupils in its entirety. True study does not *dissect* a subject, but *defines* it. Thus, the first-grade pupils, learning the use of the thermometer, will become a little better posted as to relative temperatures. By means of a journey over the school they can find out where the radiators are placed and why they are so placed, and, possibly, the number needed. Using smoking paper they can trace some of the air currents, warm and cold. They can note something as to their breathing; note, perhaps, the disagreeable odor of a poorly ventilated room. They can distinguish the different kinds of coal and make some collections. They can tell of the coal cars and coal sheds. If not otherwise practicable, the work of mining, transportation, etc., may be shown by pictures. Different kinds of coal reduced to small pieces and finely divided wood may be burned in a clay pipe or a tin cup, and the ash of each examined and comparisons made. The relation of heat to light may be presented through the heating of a small wire in a flame; when hot

enough, the wire gives light. Finally, a visit to a power-house will show what heat can do as work power. All this is general, to be sure, but what is gained is gotten through observation and by a method truly scientific, and the symmetry and wholeness of the original picture which the child had to begin with will not have been destroyed.

In the higher grades the same ground is covered; many details can be omitted which will give more time for experiments of a more exact character. Whatever the grade may be, there will be abundant demand for expression by the hand, in drawing and color work, in modeling, while almost every step will require the application of number and form. Of course the picture will not be preserved in its completeness unless the pupil is kept in touch with the great underlying causes of the phenomena of winter. The short day, the slanting sunshine, the wind, the frost and snow in place of the dew and rain form the real setting in the minds of the children for all the work that is done. Some form of records of these should be kept. The records should be graphic — not merely of itemized facts among which there are no very obvious relations.

For fuller suggestions the teacher is referred to the author's *Nature Study for the Common Schools;* for details as to experiments, to *Nature Study for the Grammar Grades;* and for related work, to *Nature Study and Related Subjects.*

THE WINTER SEASON.

I. GENERAL EFFECTS.

1. Hibernation of animals.
2. Buds, roots, stems, seeds, etc.
3. Temperature of air; of soil at different depths; in different locations. Use the thermometer.
4. Clothing and covering of animals.

II. HEATING AND VENTILATION.

1. *The school heating plant* (steam).
   (*a*) Radiators.
   (*b*) Boilers and pipes.
   (*c*) Furnace.
   (*d*) Conduction; convection; radiation; illustrative experiments.

2. *The home heating plant.*
   (*a*) Hot air.
   (*b*) Grates.
   (*c*) Hot water.
   (*d*) Steam.
3. *Effects of heat upon air.*
   (*a*) Air currents.
   (*b*) Openings of rooms, doors, cracks, etc.
4. *Breathing.*
   (*a*) Number of respirations per minute.
   (*b*) Quantity of air breathed.
   (*c*) Qualities of expired air; tests with flame and lime-water.
5. *Mechanics and physiology of breathing.*
   (*a*) Lungs and air passages.
   (*b*) Heart and blood-vessels.
   (*c*) Circulation, pulse, etc.
   (*d*) Effect of exercise as shown in breathing and pulse rate.

III. FUELS.

1. *Kinds used.*
   (*a*) Coal; anthracite, amount needed to heat the home.
   (*b*) Coal; bituminous, amount needed.
   (*c*) Natural gas; amount needed.
   (*d*) Wood; amount needed.
   (*e*) Contrast the properties of different fuels.
2. *Cost of fuels.*
   (*a*) Mining and lumbering. Localities.
   (*b*) Transportation.
   (*c*) Life of people engaged in these industries.
   (*d*) Sources of loss in the production of heat for its practical uses.

IV. NATURE OF FUELS.

1. Experiments to show the per cent. of ash in various kinds of coal and wood.
2. Experiments to show the amount of gas in different fuels.
3. Gas-making; various tests for gases.
4. Sum up the likenesses and differences of the various fuels.

V. HEAT AND LIGHT.

(1) Study of a candle; of a lamp; of a gas flame.
(2) The electric light.

VI. HEAT AS ENERGY.

(1) Study the relation of the boiler to the furnace and the engine.
(2) Its effect upon air; upon liquids; upon solids. Study buildings where iron is used in places subject to changes in temperature; beams that are riveted together.

BOOK REVIEWS.

Norse Stories. By HAMILTON WRIGHT MABIE, edited by KATHARINE LEE BATES. Chicago: Rand, McNally & Co., 1902. Pp. viii+304.

Norse Stories has for years past been considered the best collection of Norse myths for school use. The events in the life of the gods are all told, but one misses the glorious fierce movement, the simple dramatic action of these human gods. It seems as if our old humorous Thor had a different stage than the craggy rocks and deep fjords to play on, in short, one does not feel the stamp of the country on her gods; one does not feel the pulse of the Northmen in these stories as I think one might expect. I am sure that the theme *Norse Stories* is one unusually well adapted for children, and believe that the teachers will find great help in the new edition of the book. It certainly presents the stories less changed and more simple than any other collection of Norse myths.

Viking Tales. By JENNIE HALL. Chicago: Rand McNally & Co., 1902. Pp. 207, 12mo. Cloth.

Miss Hall has given to children a book which they will love. Most of the supplementary literature offered to the schools is weighed down with information until the artistic simplicity and dramatic unity are gone. Miss Hall has wisely given much needed and valuable information in "Descriptive Notes" at the end of the book, and has therefore been free to tell a pleasant and entertaining story.

Viking Tales will be a joy to children, because it deals with characters and events which are dear to a child's heart, and because the tales are told in an honest, artless style, which often catches the pure and lofty simplicity of the sagas themselves.

Of the three values of the book which Miss Hall mentions in the "Suggestions to Teachers," the first one is by all means the greatest. "The men, with the crude courage and the strange adventures that make a man interesting to children, have at the same time the love of truth, the hardy endurance, the faithfulness to plighted word, that make them a child's fit companion."

It is here one perhaps feels moved to say: "Give us more of this, more examples of the dashing and daring, more of that peculiar grim humor, more of that intense hatred and immeasurable love which moved these strong men to action."

But withal there is much of the true Viking spirit in the book, and it certainly will receive a warm welcome by children and teachers alike.

GUDRUN THORNE-THOMSEN.

THE UNIVERSITY OF CHICAGO
School of Education.

Just So Stories for Little Children. By RUDYARD KIPLING. New York: Doubleday, Page & Co. Pp. 249, 8vo. Cloth.

ONE who has learned to know the *Jungle Book* with children is predisposed to find a treasure in another volume of children's stories from Kipling's pen. One, how-

ever, who has read both *Captains Courageous* and *Stalky & Co.* should not expect all this author's stories to be pitched on an even high level. In the *Just So Stories* we are treated to some delicious bits of humor, which, however, are rather mixed in their seasoning, being flavored in part to suit the palate of the sophisticated adult and yet abounding in just those bald incongruities and turns of fancy that are to children of a certain age the soul of wit. The childish mispronunciations of long words, the puns and illusions that require experience and culture to appreciate, and the gentle satire upon some educational and anthropological hobbies, all impress one as the outcome of a playful mood in some grown person who amuses himself for a time with a child: telling him a story, then quizzing him to hear his naïve replies; dropping occasional dry asides for the appreciation of listening grown ups; and altogether telling the story half for the child's entertainment and quite half for his own enjoyment of the youngster's attitude toward it. The story of "How the Leopard Got His Spots" is quite in this vein. "How the Camel Got His Hump" contains an appreciable moral most humorously and adroitly administered.

"The First Letter" and "How the Alphabet Was Made" are charming settings of the evolution of symbols, fanciful yet not distorted, that would put heart into the dreariest presentation of the cave-man.

Altogether the book with its alliterations, its repetitions, and its jokes, is a contribution worth many a proper story of "Amy and Her Little Dog Carlo."

Eskimo Stories. By MARY E. SMITH. Chicago: Rand, McNally & Co., 1902. Pp. 189, 12mo. Cloth.

Eskimo Stories fills quite another place in the mass of literature for children. It is a most carefully prepared study of Eskimo life in the form of reading lessons. The language is not only simple, but also picturesque. The lessons grow gradually in richness of language, and yet do not sacrifice the presentation of vivid, accurate pictures of Eskimo life to the aim of teaching children to read by means of ringing repetitions and changes on a limited vocabulary. This presentation of arctic village scenes is so thoroughly made that it would seem as if scarcely a question concerning the Eskimos' solution of the problems of "food, clothing, and shelter" would remain unanswered in these pages. It is therefore a book that will be most helpful to use after these questions have been put to children and partially answered by their own inventive wit, rather than as an introduction to the subject. The illustrations are plentiful and well selected to fill out imagery where words are meager aids. The purpose of the book as concisely stated in this extract from the author's preface is well carried out: "Continual effort has been made to lead the child beyond the point of curiosity, into the realm of understanding, where alone true sympathy is born."

BERTHA PAYNE.

THE UNIVERSITY OF CHICAGO
School of Education.

EDITORIAL.

SOME CRITERIA IN THE JUDGMENT OF A SCHOOL.

One of the healthful features in the movement of modern education is that which tends to give greater publicity to the work of the schools. It is a far cry from the days when all academic learning was acquired in cloisters by a few of the elect. But even at the present time the public at large is only beginning to feel a deep personal interest in the daily work of the children—an interest sufficiently real to justify their taking days for frequent visitation. A glance through the old "Report Books" of the schools in fairly intelligent communities twenty-five or thirty years ago will show that weeks and months often passed without the registration of a single caller! Today, however, in the best schools the problem of showing due attention to the daily interested visitors is not the least of the teachers' cares. The patrons and public are at last honestly trying to find out what the schools are doing, and the schools must meet them at least half way.

To estimate correctly the worth of a good school is not an easy matter; to attempt to do so through what may be seen during a casual visit is impossible. It is a task to which he who would know the school must bring the power to discern what is essential and abiding in character-building and to distinguish it from the artificial and the ephemeral. This can be done only through careful and intelligent study. It follows, therefore, that the *growing tendencies* of the pupils should be more carefully considered than any fixed or definite results that may be produced at a given time. The latter may utterly belie the former either the one way or the other; even a tyro is well aware of their entire unreliability. The ability to read and write in itself counts for absolutely nothing; it is the *moral tendency* of the one who has acquired the ability that tells it all. Results, as tangible quantities, can be marked in per cents., and, upon these, pupils and schools have been graded. Tendencies, as moral qualities, cannot be estimated in such terms, and as a rule they play only a secondary part in gradation and promotion. Those who insist upon estimating a pupil or a school by the usual methods of marking are necessarily confined in their rating of values to those features which are in themselves inessential and unreliable as indications of true worth.

The value of the new school can be estimated in the home of the children as well as in the schoolhouse. Parents may apply a crucial, but nevertheless true, test of the intrinsic worth of the school by observing the attitude of the children toward the usual duties that fall within the routine of ordi-

nary life. If the tendency of the pupil is toward greater interest in the work of the home, toward greater proficiency in the performance, and, if with added years the tendency is toward an enlarged interest in public matters and a growing inclination to measure events according to moral standards, then the school may be accounted as doing its legitimate work. If the tendencies are otherwise, the school is of doubtful value.

The fundamental condition necessary to the proper development of moral tendencies in children is that of freedom. Schools of the ordinary type are instruments of restraint—of physical, mental, and moral repression. There is physical repression, through the stiff and artificial modes of recitation and work that are adopted in the supposed interests of order; mental repression, through the assignment of work that does not fall within the range of the pupils' true and natural interests; moral repression, through the arbitrary legislation or dictation of the teacher which pre-establishes the social and moral relationship of the pupils and leaves nothing for the individual or the society but blind obedience. The new school is an institution founded with the deliberate, avowed, and conscious purpose of maintaining for the pupils that degree of freedom which may be necessary for the highest efficiency in their work. It seeks to insure the physical freedom which is demanded by any workman in the untrammeled performance of his duties; mental freedom in the development of means by which his work may be done; and moral freedom to participate in the establishment of that social order under which all may labor with the greatest pleasure and effectiveness. One must expect to see in a school of this type many things which are out of harmony with the old ideas of "school order." He must be prepared to find considerable actual confusion present in any body that is permitted to attempt self-organization. The worth of the school at this point turns upon the genuine tendency exhibited by the pupils toward real disorder. If there is an honest effort to reduce the friction so that more and better work may be done, then present confusion counts for but little. If this tendency is lacking, then the confusion is indeed an evil. It must be remembered, too, that order in the best sense is in nowise directly proportioned to that outward calm that often prevails in the so-called orderly schools of the usual type. The unruffled exterior presented by the pupils may be the result of utter indifference and listlessness developed because there is little or no opportunity allowed for participation in educative work; or it may be but a thin crust of enforced quiet that holds raging rebellion and anarchy pent up within. In the former instance, the terms "order" and "disorder" are inapplicable; in the latter there is the most pernicious and dangerous kind of disorder.

Whether or not the school shall represent an evolution of upward tendencies must depend upon the stimulus derived from the thought-stuff and work-stuff upon which the pupils are employed. The value of this depends, in turn, upon its immediate purpose, and it follows, then, that the subject-matter

for study must be derived as directly as possible from the world's work as the children are able to see it at present. The old régime of the school-day, therefore, must be considerably broken, that, by visits to stores and factories, to farms, to the woods and swamps, and the lakeshore, the pupils may find out at first-hand just what is being done. Upon this supply of thought-stuff as a basis, only, are they able to draw with intelligence upon the sources of knowledge that are reached by the books, maps, and pictures of the schoolroom.

The time-honored and ancient forms of the recitation hour, with its stiff, stilted, and artificial methods, in which the pupil was tested mainly by the answers which he could give to the questions proposed by the teacher have practically no place in the best type of school. Instead, the pupil is measured rather by the number of problems which he himself proposes for consideration and solution. This renders the "assignment of lessons" by the page impossible; in place of this the lessons are prepared from the pages of many books used as references and from the direct study of appropriate materials by the scientific methods of observation. This makes the pupil more dependent upon the library and the laboratory, upon the fields and the shops, and the amount of "home work," so called, in the earlier stages of school life is greatly reduced. This line of procedure creates a tendency toward resourcefulness and self-reliance.

Freedom in thinking means, also, freedom in expression. The new school stimulates and demands an amount and variety in expression not dreamed of in the old. Children outside of school have always drawn, painted, modeled, and made the things they loved, as far at least as their own inventions as to materials and means permitted. But once within the school, these modes of self-development were denied them — logically enough, for the school itself furnished nothing which called for their use. The school work of the present demands, now, a model in clay or sand; now, a drawing on paper or on the blackboard, or a picture in color; now, something to be made in the shops, or to be woven on the looms. Hence the fatalistic character of the old daily program, in which all of the day's happenings were foreordained for a term or a year in advance, is almost entirely changed. Instead of diminishing the attention that must be given to the "three R's," the plan of work in the new schools has increased it many fold. The libraries, now forming a part of the necessary equipment of every good school, are the silent but unimpeachable witnesses to the vastly increased demand for reading and its yoke-fellow, writing.[1] The practical character of the problems which confront the pupils involves the use of number and form to such an extent that the ancient and stereotyped forms of the arithmetic lesson are rendered unnecessary.

The constant participation of the pupils in the actual doings of the people naturally arouses in them the ebb and flow of emotions that has marked the history of the race. Upon this fact rests the dramatic work of the school.

This reaches its climax in the celebration of festivals and events which themselves mark great culminations of thought and feeling in racial history. These fête days belong to every age and to every people. The emotions of the children are derived from the same sources of nature and life that originally gave birth to the celebrations among men. Consequently they enter into the study of the people of all times with a purpose strengthened with that feeling of kinship which gives a fervor to their expression and action utterly unknown in the old "school exhibition." The celebration of Thanksgiving, Christmas, Easter, really in their essence great nature festivals, and of great events of history, therefore, becomes inevitably a part of the work of the school, because they are a great part of the actual life of man.

These features of the new school have displaced the more familiar ones of the old, because of their direct value in the lives of the children. That they are as yet novel, unexpected, and unfamiliar to most people is evidenced by the frequent remark of visitors: "I have enjoyed this day with the children very much, but I should like to visit some time when the school is engaged in *its regular work* (!)" not realizing that the regularities of the old are the irregularities of the new. The school has become an institution of ideals, because ideals are the ultimate measure of life; to know and to understand the school, therefore, one must use the same tests that are applied to life.

WILBUR S. JACKMAN.

BOOKS RECEIVED.

Child Stories from the Masters: Being a few Modest Interpretations of Some Phases of the Master Works Done in a Child Way. By Maud Menefee. Chicago: Rand, McNally & Co., 1899. Pp. 104, 12mo; cloth.

A Child's Garden of Verses, illustrated by E. Mars and M. H. Squire. By Robert Louis Stevenson. Chicago: Rand, McNally & Co., 1902. Pp. 93, 12mo; cloth.

Classic Myths, illustrated by Angus MacDonall. By Mary Catherine Judd. Chicago: Rand, McNally & Co., 1894. Pp. 204, 12mo; cloth.

Danny. By Alfred Ollivant. New York: Doubleday, Page & Co., 1892. Pp. 425, 8mo; cloth.

Elementary Studies in Insect Life. By Samuel J. Hunter. Topeka: Crane & Co., 1902. Pp. 344, 12mo; cloth.

Eskimo Stories. By Smith, Mary E. E.; illustrated by Howard V. Brown. Chicago: Rand, McNally & Co., 1902. Pp. 189, 12mo; cloth.

Four Old Greeks: Achilles, Herakles, Dionysos, Alkestis, with Drawings from Greek Sources by Raymond Perry. By Jennie Hall. Chicago: Rand. McNally & Co. Pp. 224, 12mo; cloth.

The Holton Primer. By M. Adelaide Holton. Chicago: Rand, McNally & Co., 1902. Pp. 111, 12mo; cloth.

How to Attract the Birds, and Other Talks about Bird Neighbours. By Neltje Blanchan. New York: Doubleday, Page & Co., 1902. Pp. 224, 12mo; cloth.

anguage through Nature, Literature, and Art. By H. Avis Purdue and Sarah E. Griswold. Chicago: Rand, McNally & Co., 1902. Pp. 238, 12mo; cloth.

The Sunbonnet Babies' Primer, illustrated by Bertha L. Corbett. By Eulalie Osgood Grover. Chicago: Rand, McNally & Co., 1902. Pp. 109, 12mo; cloth.

Adventures of Torqua: Being the Life and Remarkable Adventures of Three Boys, Refugees on the Island of Santa Catalina (Pimug-na) in the Eighteenth Century. By Charles Frederick Holder. Boston: Little, Brown & Co., 1902. Pp. 282, 12mo; cloth.

Annual Report of the Smithsonian Institution for the Year Ending June 30, 1901. Washington: 1902. Pp. 782, 8vo; cloth.

The Arithmetic Primer: An Independent Number Book Designed to Precede Any Series of Arithmetics. By Frank H. Hall. New York: Werner School Book Co., 1901. Pp. 108, 12mo; cloth.

The Atlas Speller. By Frank R. Dyer. Chicago: Central School Supply House, 1902. Pp. 128, 12mo; boards.

The Cricket on the Hearth. By Charles Dickens, edited by G. B. Aiton and illustrated by G. C. Widney. Chicago: Rand, McNally & Co. Pp. 176, 12mo; cloth.

The Gold Bug. By Edgar Allan Poe, edited by Theda Goldmeister and illustrated by G. C. Widney. Chicago: Rand, McNally & Co., 1902. Pp. 111, 12mo; cloth.